

APPROVED	O.G. FIG.
BY	CLASS. SUBCL.
DRAFTSMAN	

Inventor: Kuriyama, Chojiro
 Patent No.: 10921.90USD1
 TITLE: PACKAGED SOLID ELECTROLYTIC CAPACITOR AND METHOD OF MAKING SAME
 Attorney Name: Douglas P. Mueller
 Phone No.: 612.371.5237
 Sheet 1 of 73

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FIG. 1

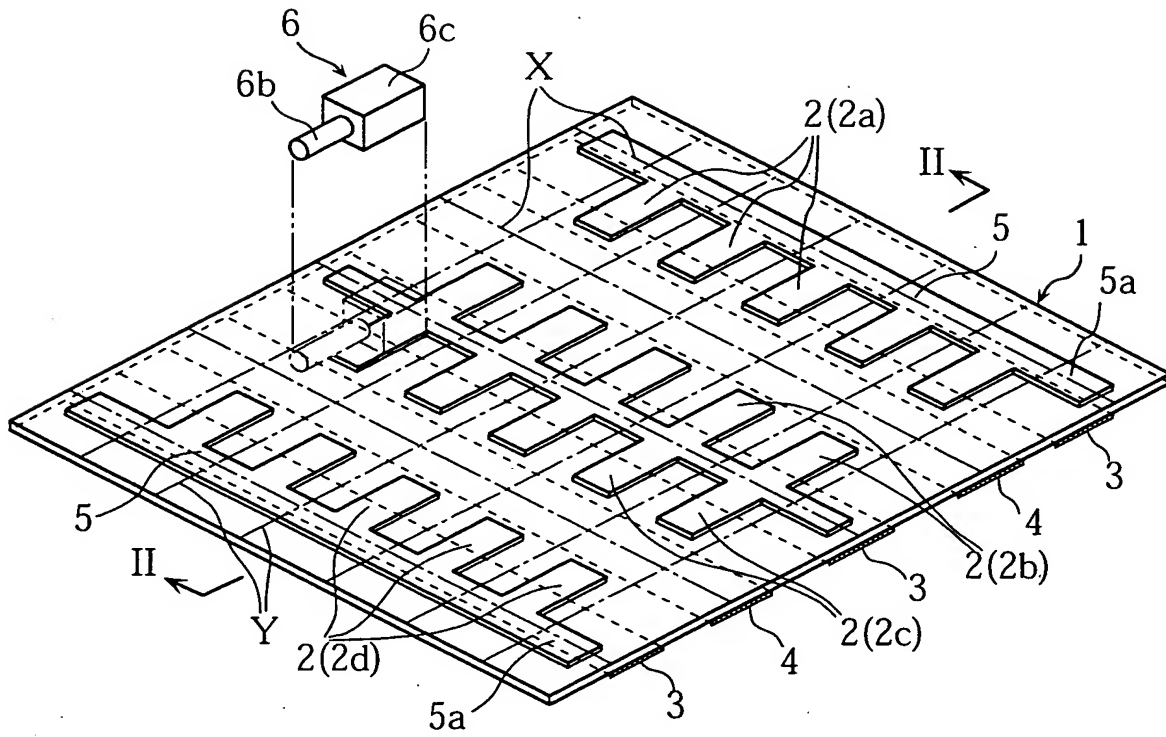
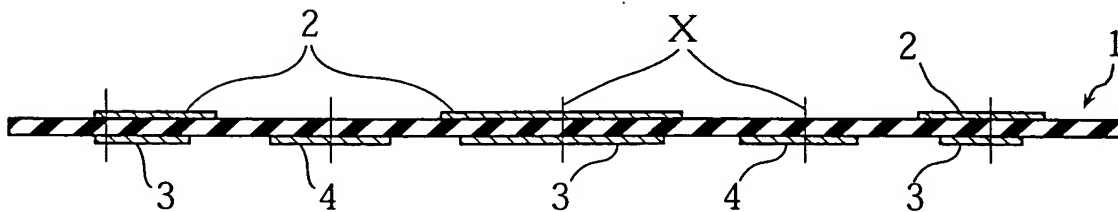


FIG. 2



APPROVED	O.G. FIG.	
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Inventor: Kuriyama, Chojiro
Docket No.: 10921.90USD1
TITLE: PACKAGED SOLID ELECTROLYTIC CAPACITOR AND METHOD OF MAKING
Attorney Name: Douglas P. Mueller
Phone No.: 612.371.5237
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FIG. 3

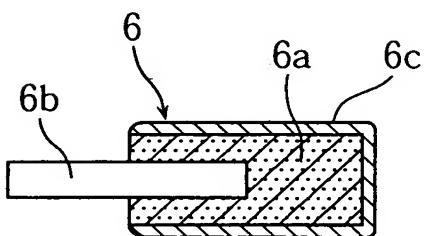
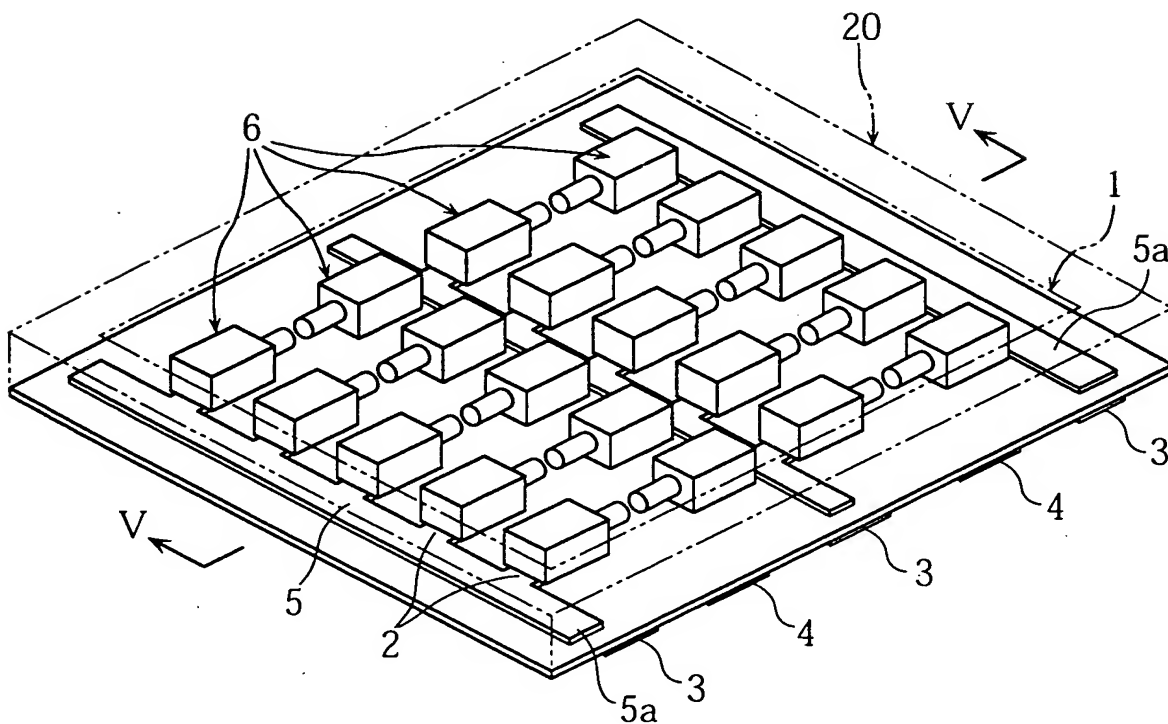


FIG. 4



10008934-110901

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FIG. 5

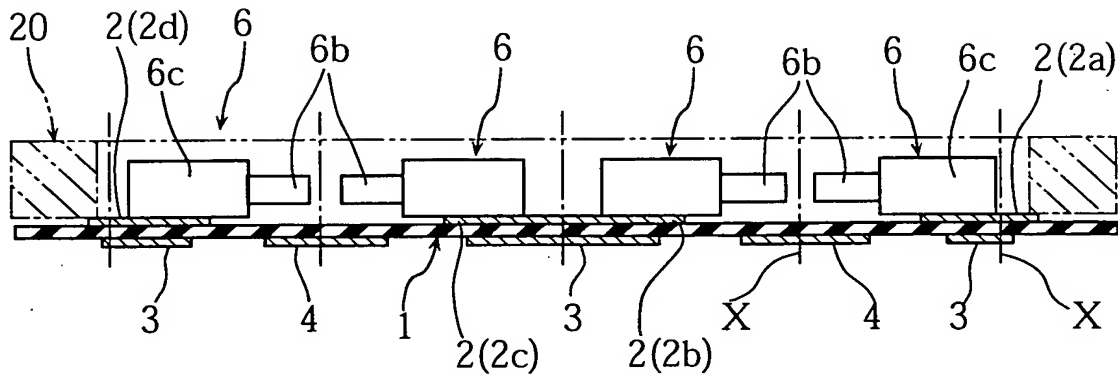


FIG. 6

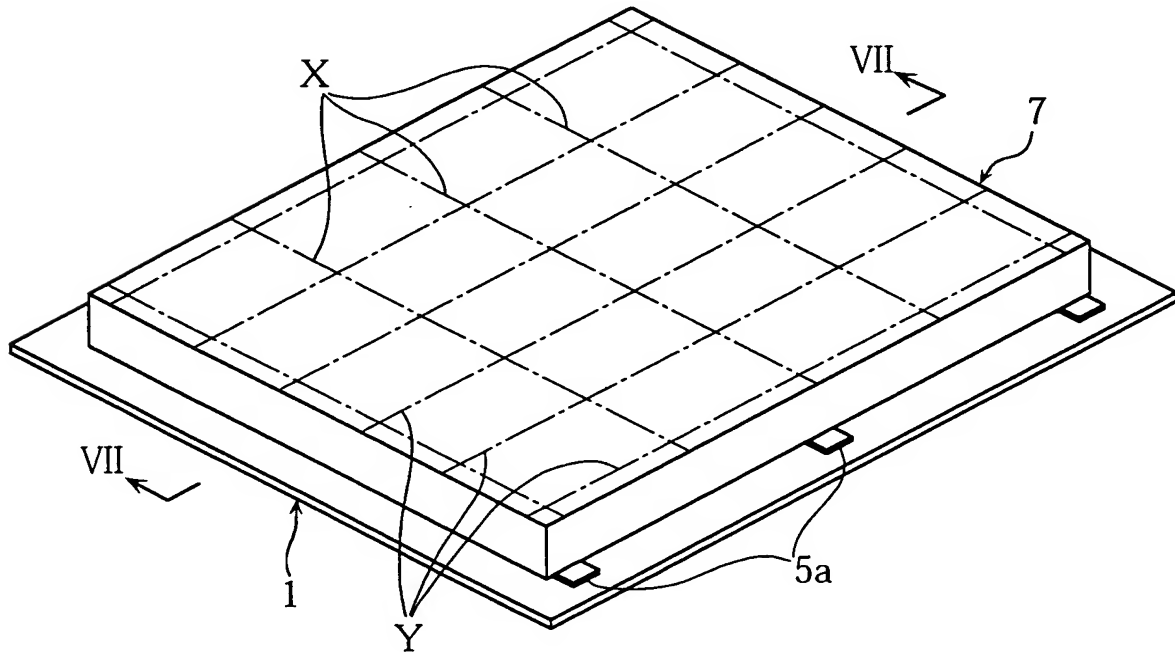
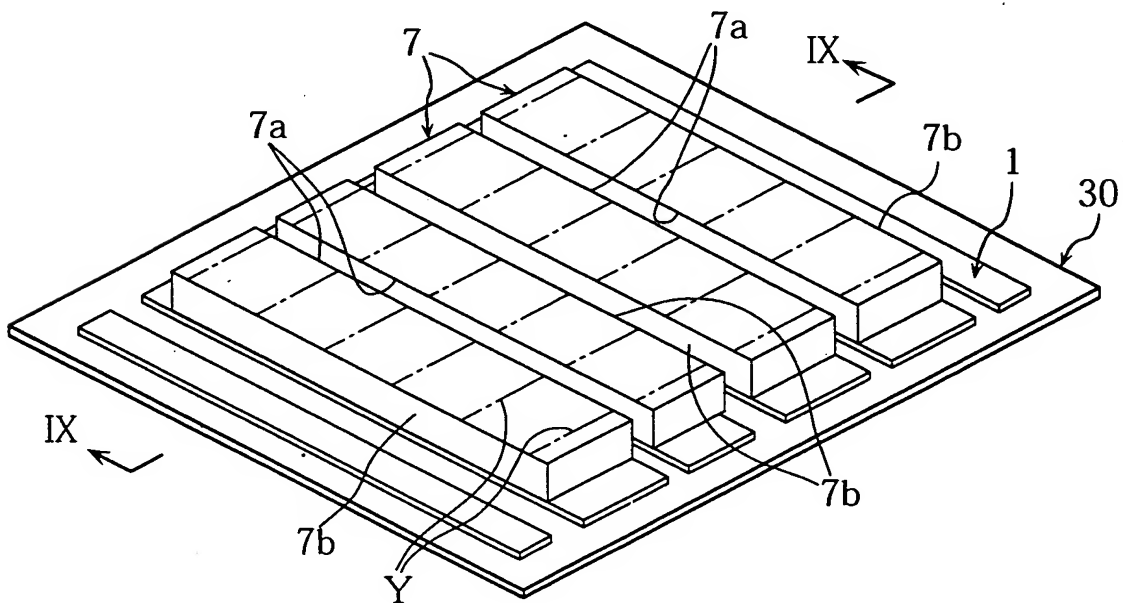


FIG. 5



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FIG. 9

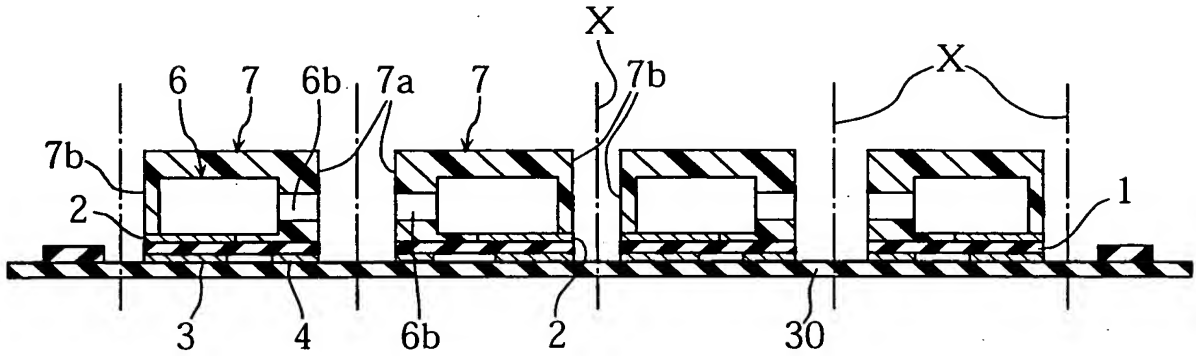
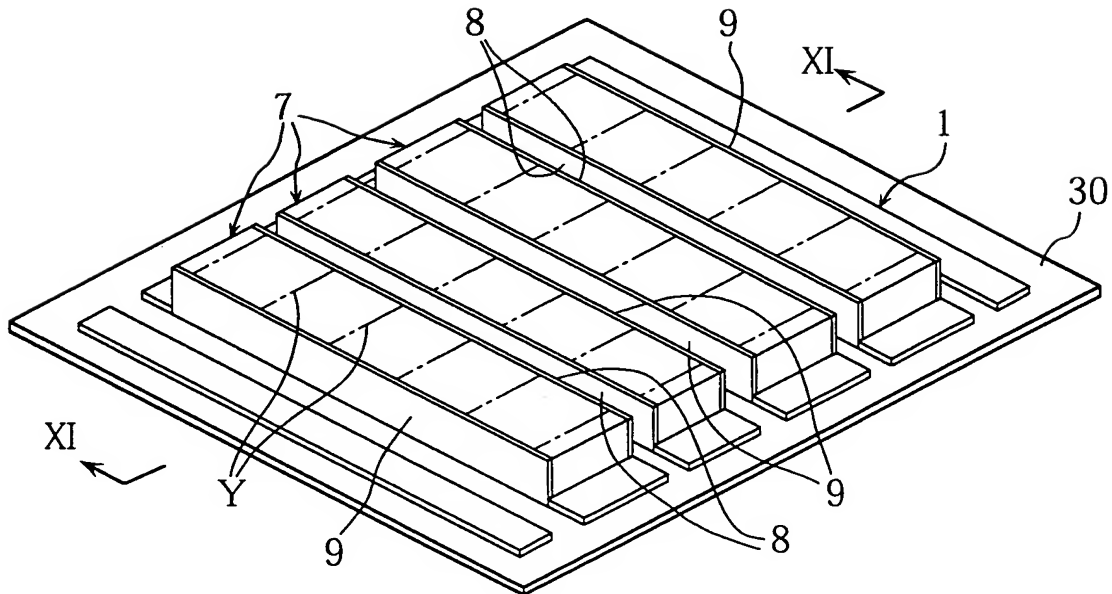


FIG. 10



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APPROVED	O.G. FIG.	
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Inventor: Kuriyama, Chojiro
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Phone No.: 612.371.5237
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FIG. 11

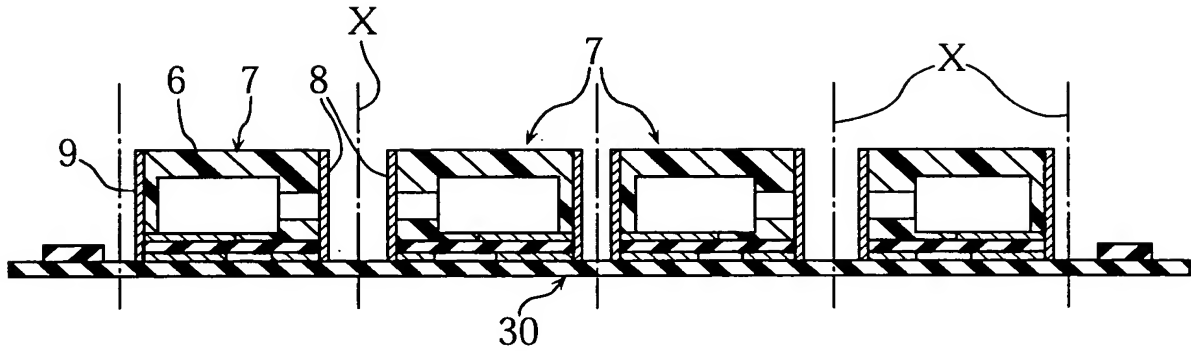
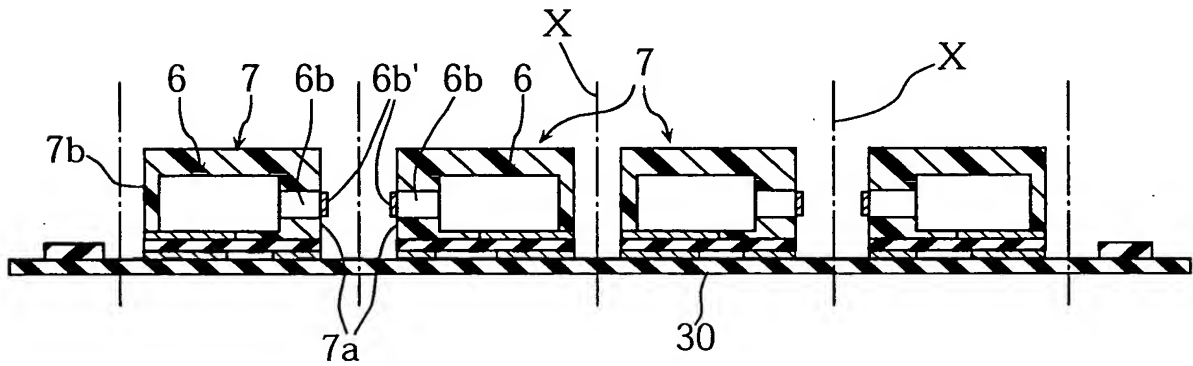


FIG. 12



106011-468001

APPROVED	O.G. FIG.
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DRAFTSMAN	

Inventor: Kuriyama, Chojiro
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Title: PACKAGED SOLID ELECTROLYTIC CAPACITOR AND METHOD OF MAKING
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FIG. 13

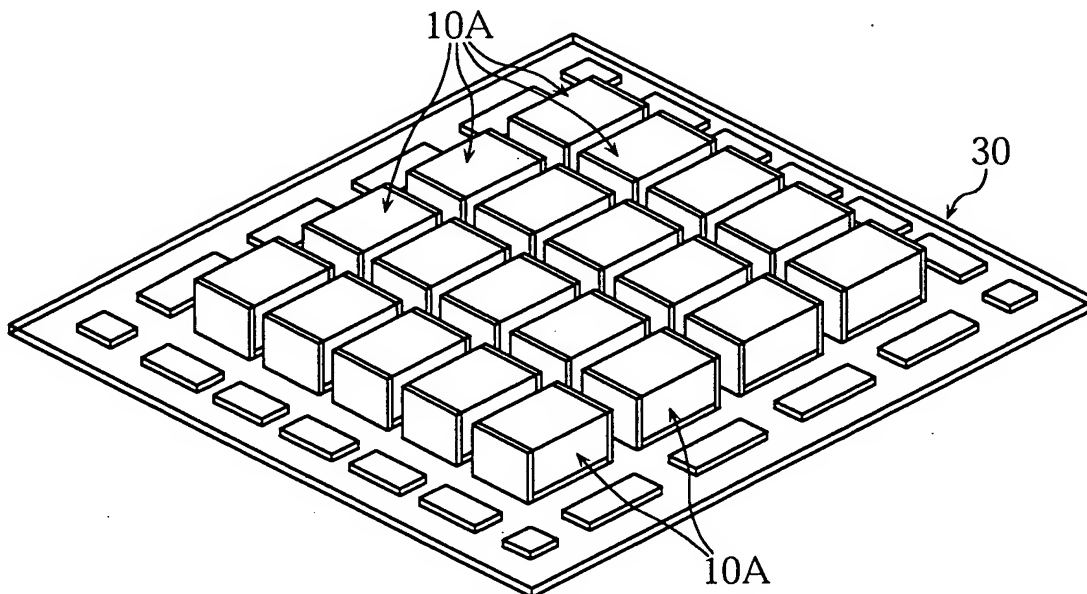
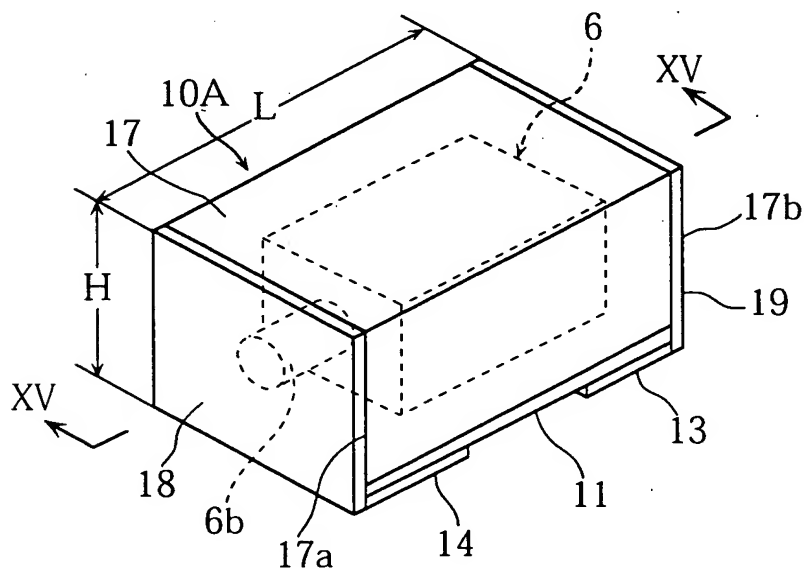


FIG. 14



1000934-110901

APPROVED	O.G. FIG.
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Inventor: Kuriyama, Chojiro
Docket No.: 10921.90USD1
Title: PACKAGED SOLID ELECTROLYTIC CAPACITOR AND METHOD OF MAKING
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Attorney Name: Douglas P. Mueller
Phone No.: 612.371.5237
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FIG. 15

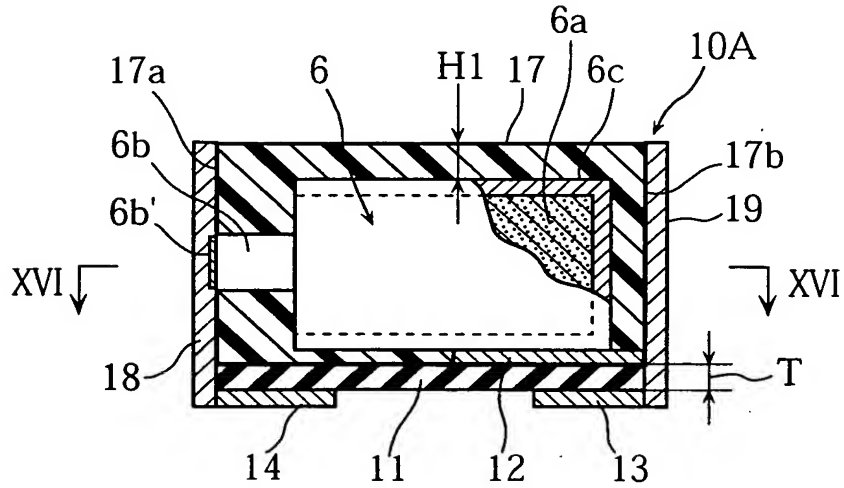


FIG. 16

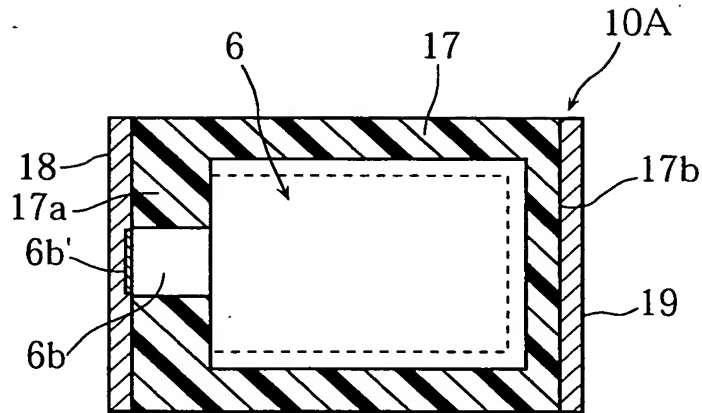
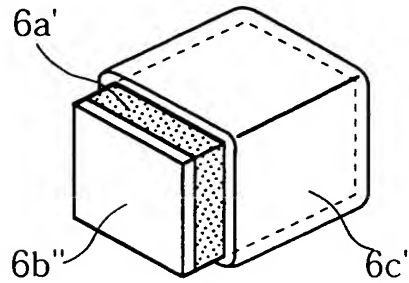


FIG. 17



APPROVED	O.G. FIG.	
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Phone No.: 612.371.5237
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FIG. 18

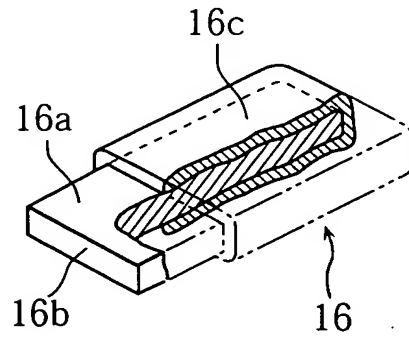


FIG. 19

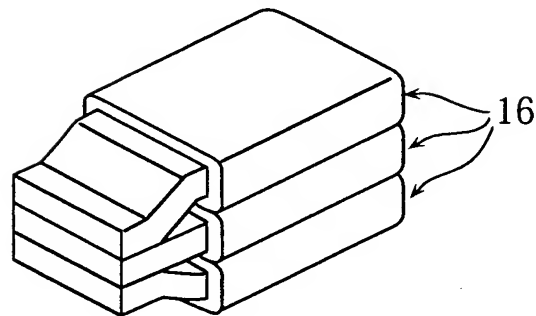
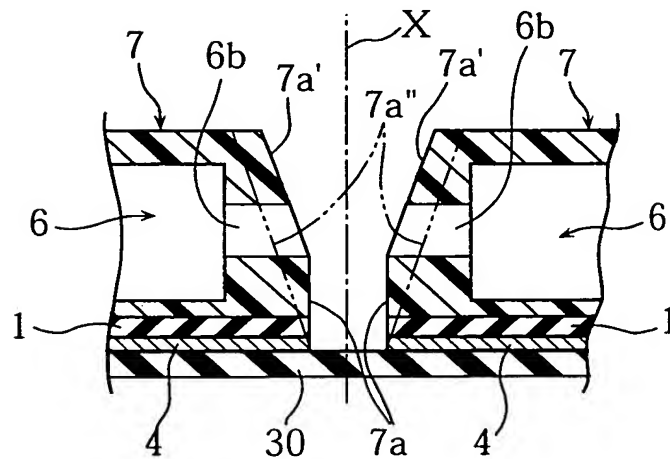


FIG. 20



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APPROVED	O.G. FIG.
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Inventor: Kuriyama, Chojiro
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FIG. 21

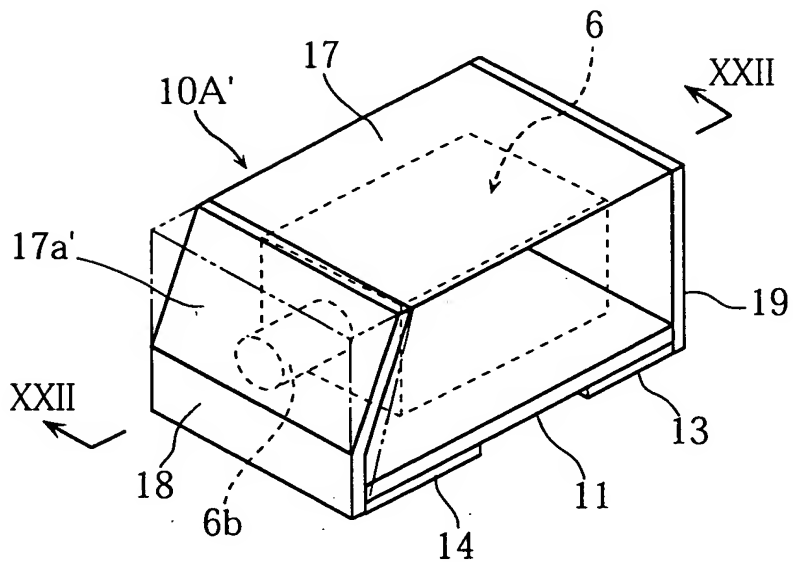
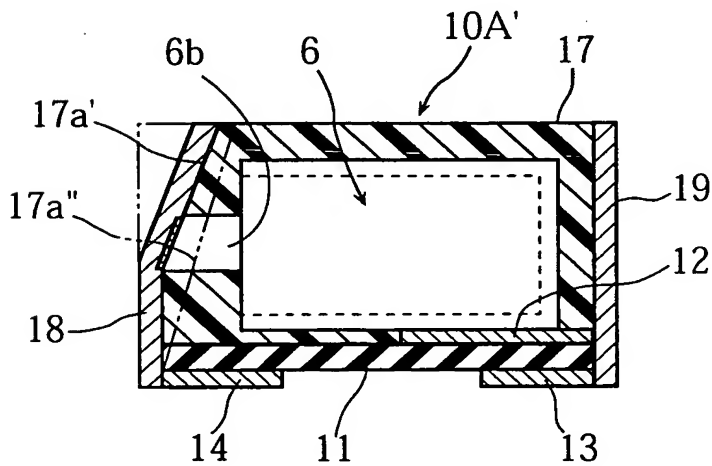


FIG. 22



APPROVED	O.G. FIG.	
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FIG. 23

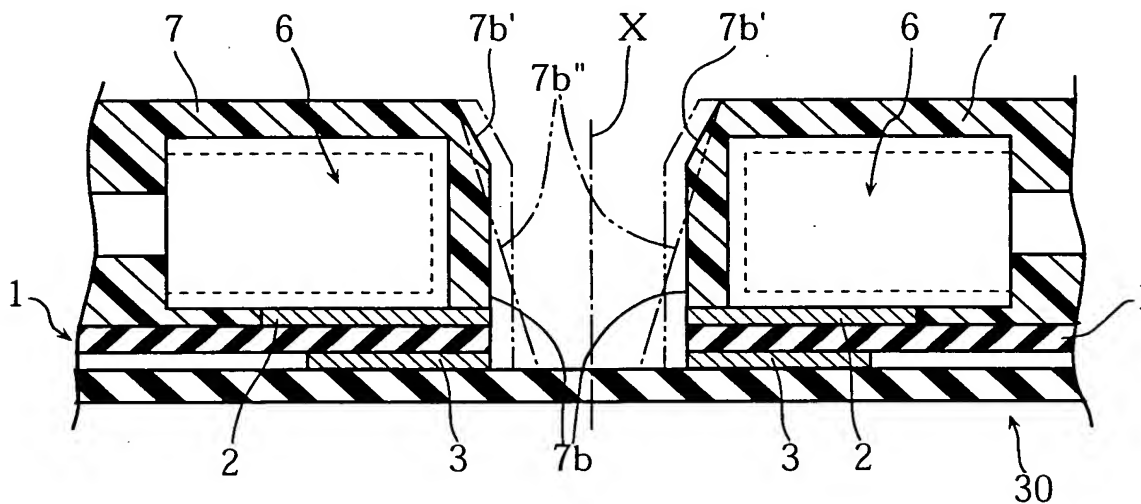
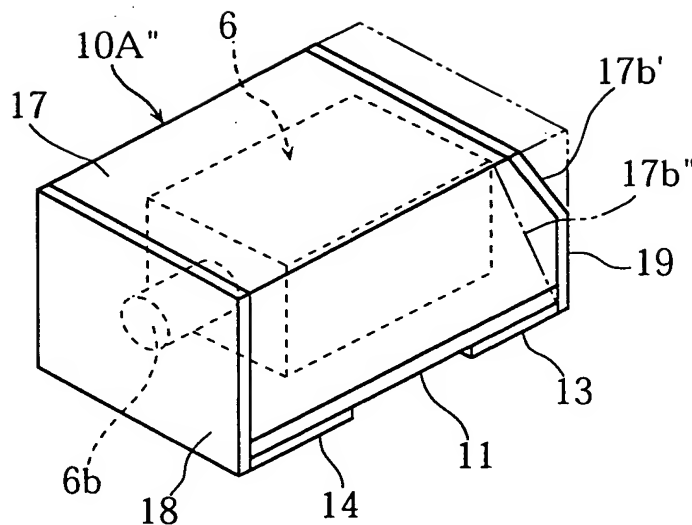


FIG. 24



APPROVED	Q.G. FIG.	
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Inventor: Kuriyama, Chojiro
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FIG. 25

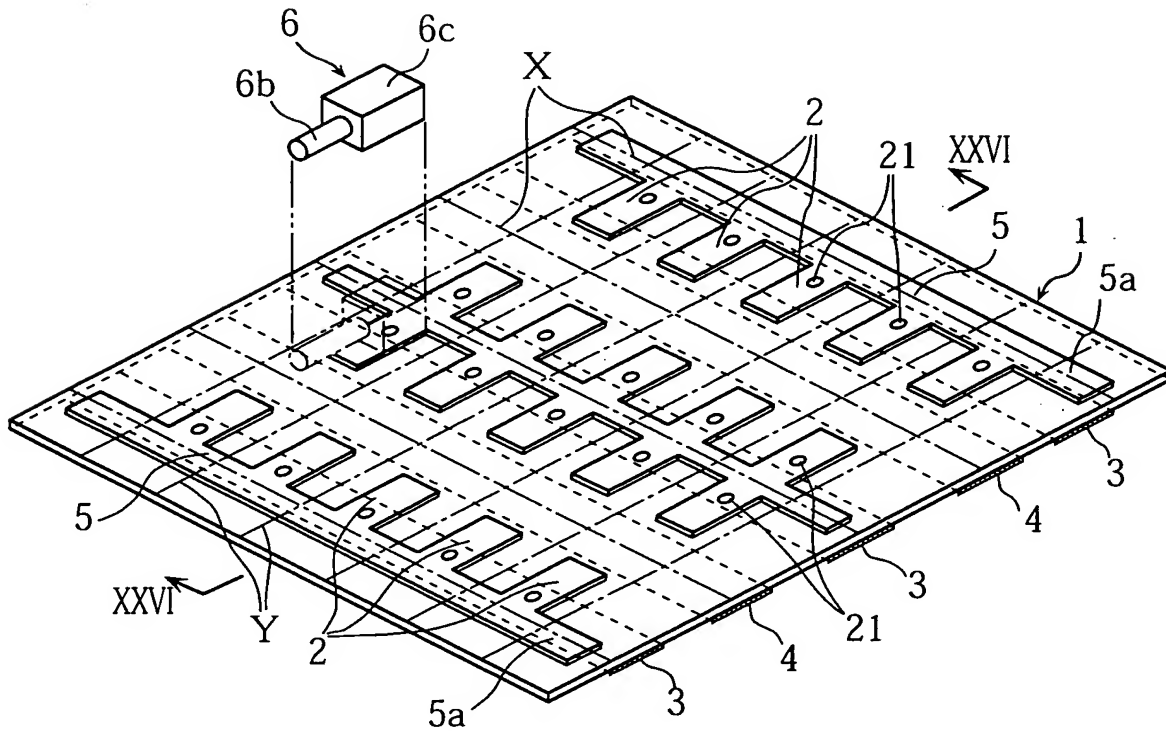
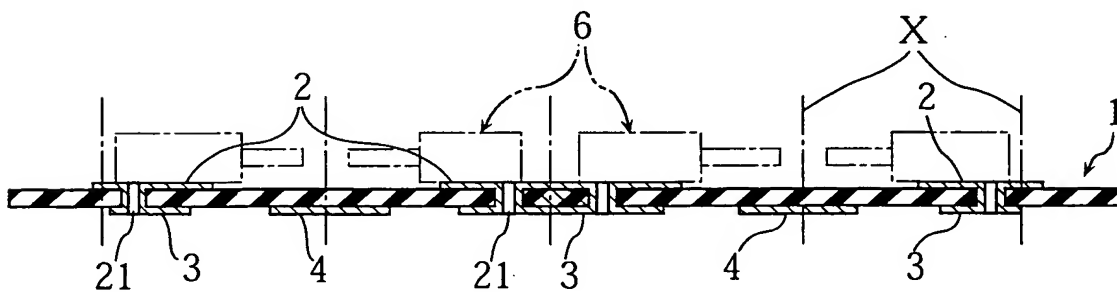


FIG. 26



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APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

Inventor: Kuriyama, Chojiro
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Attorney Name: Douglas P. Mueller
Phone No.: 612.371.5237
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FIG. 27

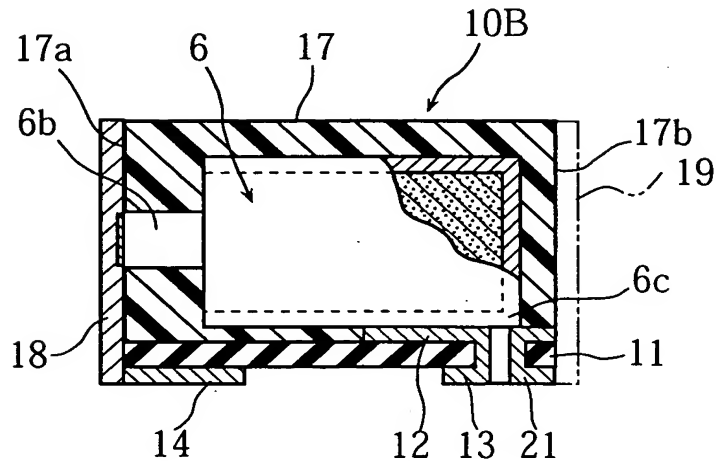
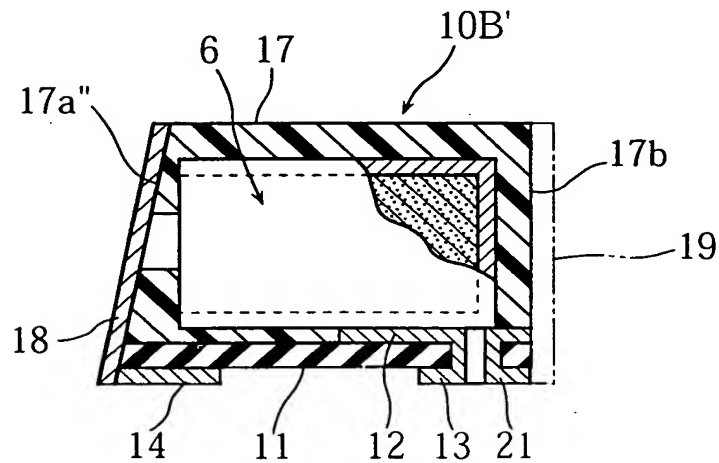


FIG. 28



[illegible]

APPROVED	O.G. FIG.
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FIG. 31

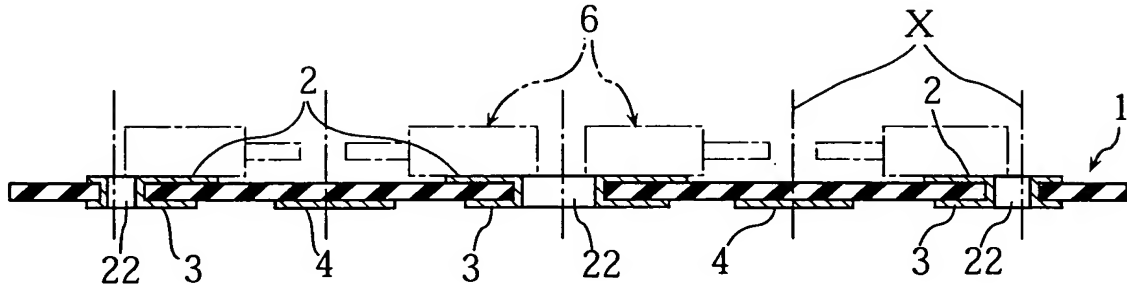


FIG. 32

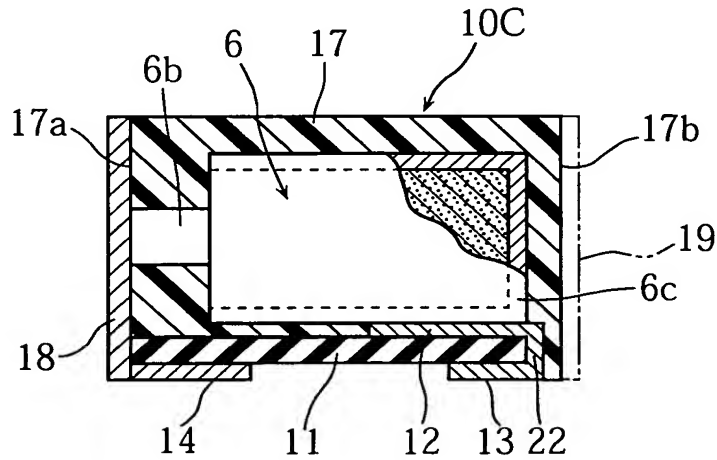
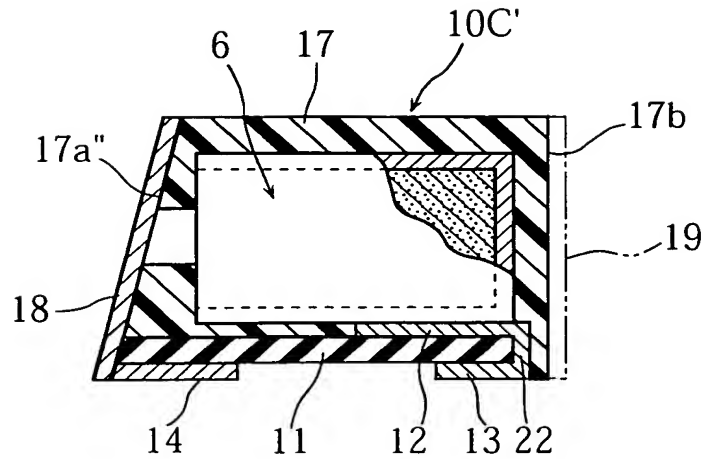


FIG. 33



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APPROVED	O.G. FIG.	
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Inventor: Kuriyama, Chojiro
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 THE SAME
 Attorney Name: Douglas P. Mueller
 Phone No.: 612.371.5237
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FIG. 34

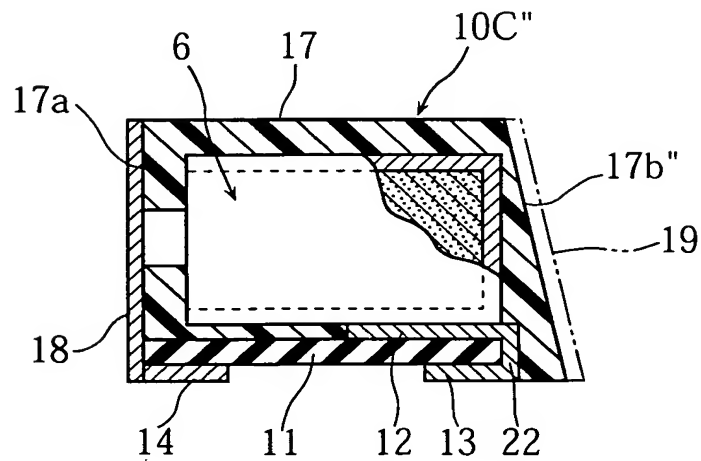
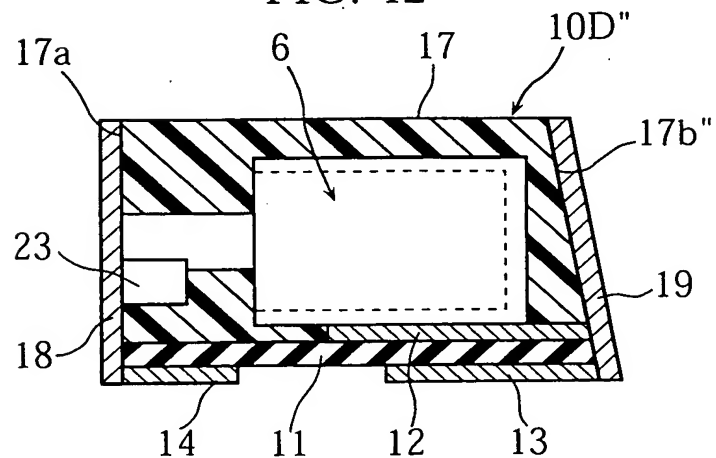
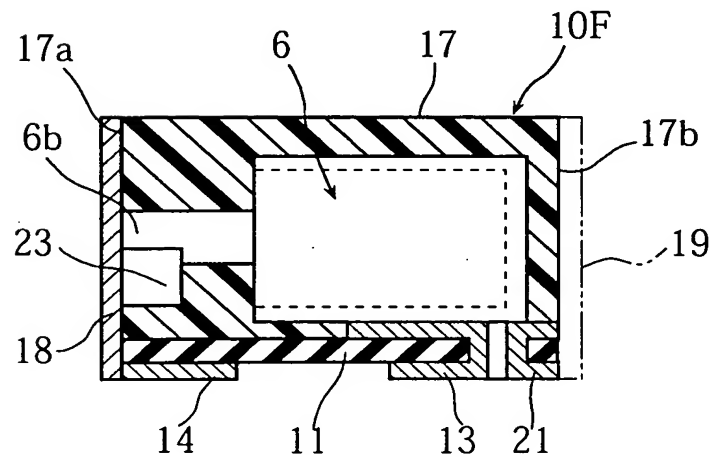
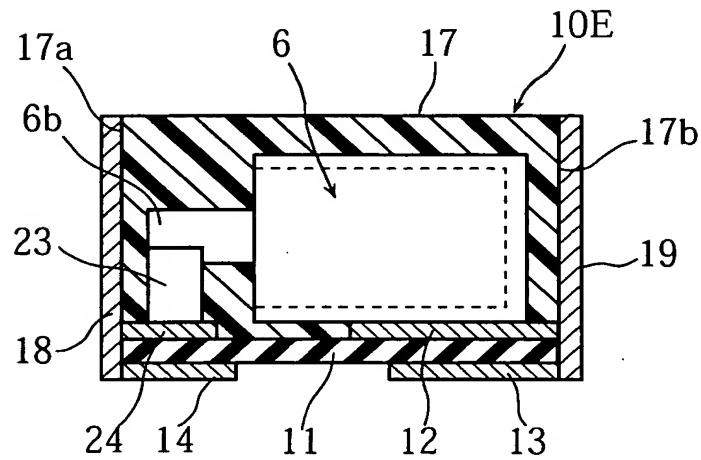


FIG. 34 10921.90USD1

This diagram shows a cross-section of the second embodiment of the semiconductor device. It features a substrate 30 at the base. A first conductive layer 3 is formed on the substrate. Above it is a dielectric layer 2. On top of the dielectric layer is a second conductive layer 4. A central rectangular region is defined by dashed lines, representing a cavity or a specific functional area. This region is surrounded by a material labeled 6b. The entire assembly is enclosed within a larger structure 7, which is further bounded by a frame-like component 8. The outermost boundary is indicated by a dashed line 9. A vertical section line X-X is shown passing through the center of the device.

FIG. 40





APPROVED	O.G. FIG.	
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Inventor: Kuriyama, Chojiro
 Do No.: 10921.90USD1
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 NAME
 Attorney Name: Douglas P. Mueller
 Phone No.: 612.371.5237
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FIG. 45

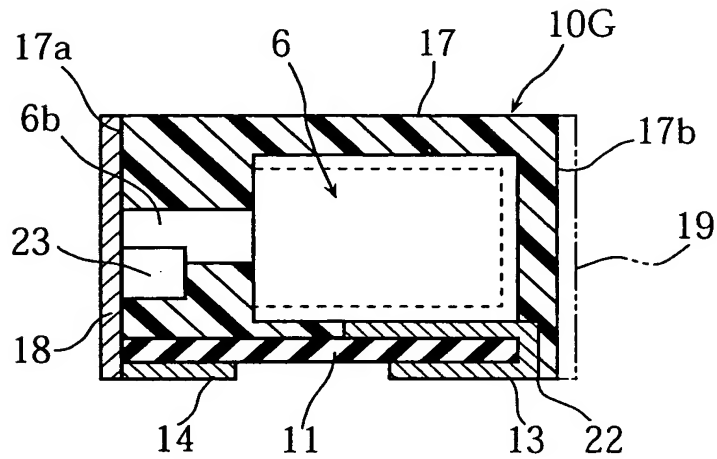
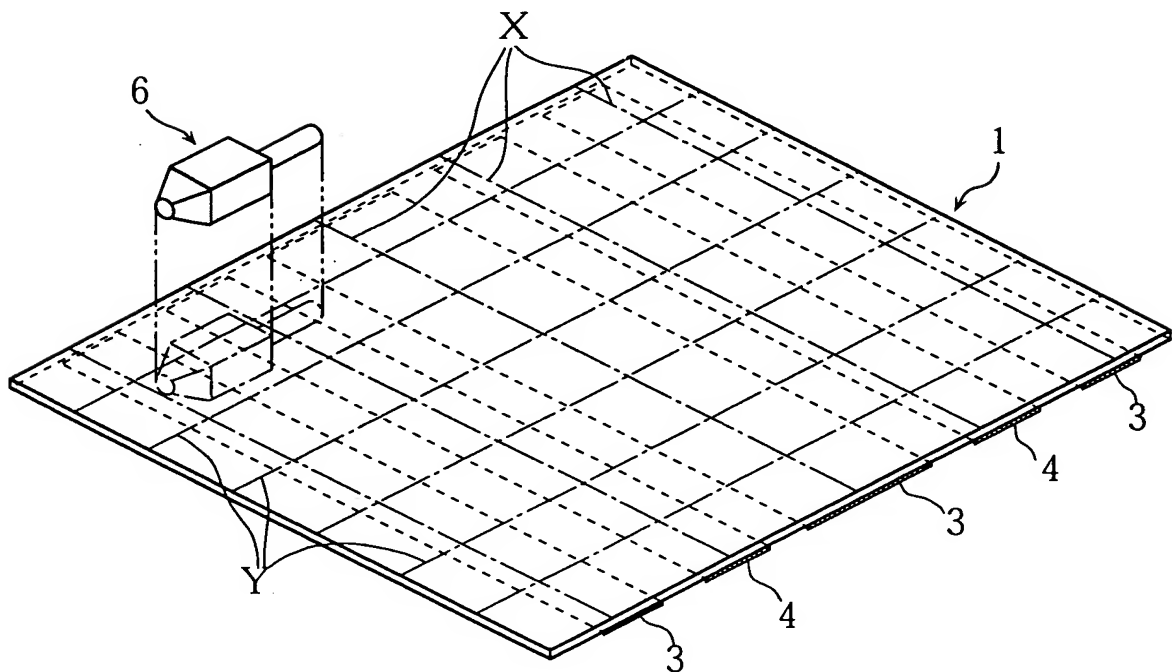


FIG. 46



1000834-4258001

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

Inventor: Kuriyama, Chojiro
Docket No.: 10921.90USD1
PACKAGED SOLID ELECTROLYTIC CAPACITOR AND METHOD OF MAKING
ME
Attorney Name: Douglas P. Mueller
Phone No.: 612.371.5237
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FIG. 47

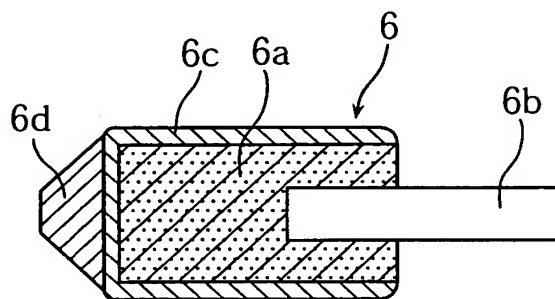
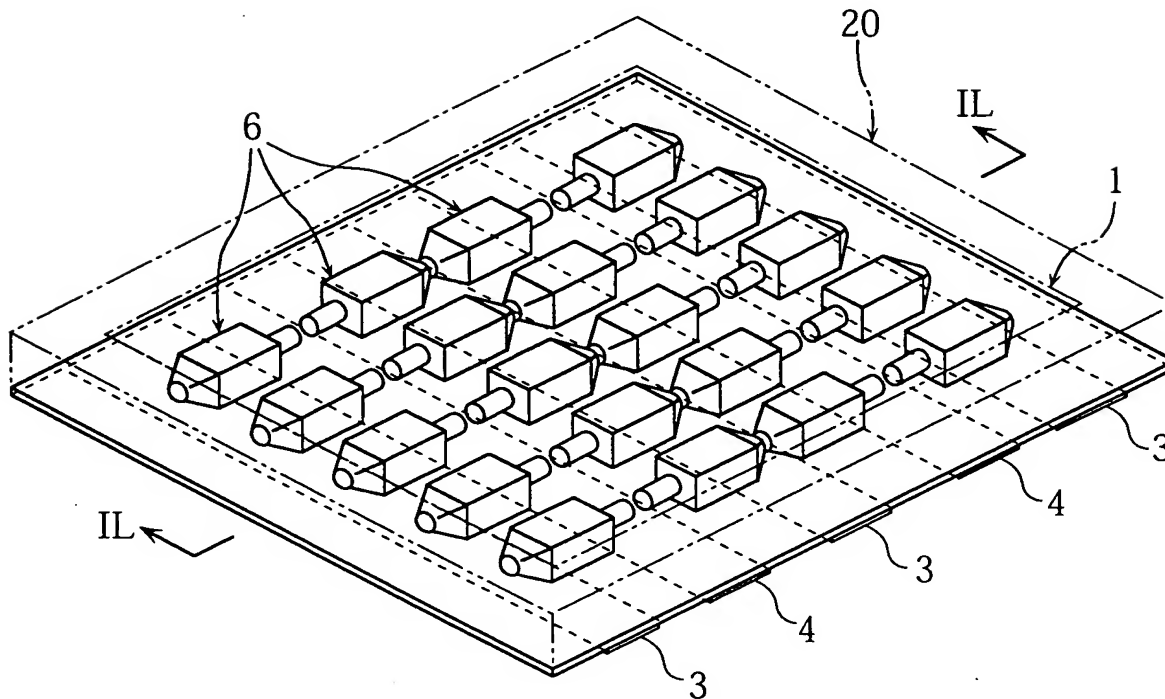


FIG. 48



10008934-100001

APPROVED	O.G. FIG.
BY	CLASS SUBCLASS
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FIG. 49

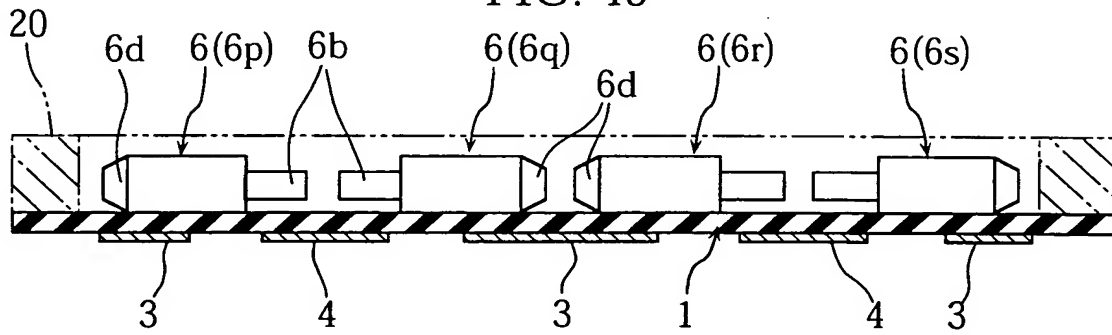


FIG. 50

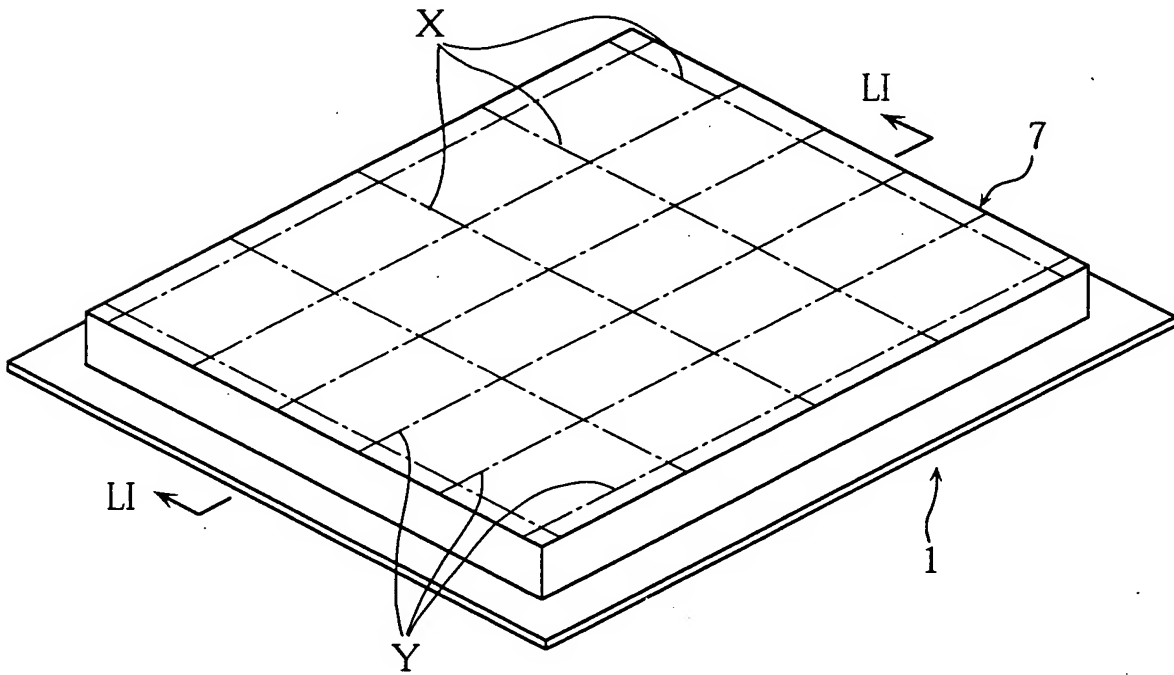
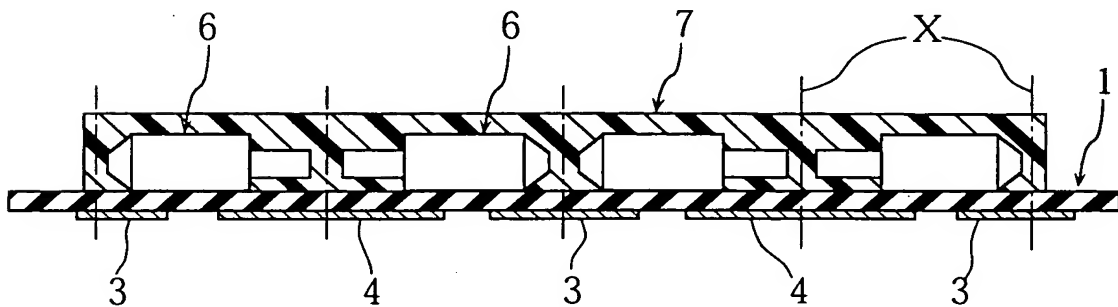


FIG. 51



1008534-10903
 FIG. 49

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

Inventor: Kuriyama, Chojiro
Docket No.: 10921.90USD1
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Phone No.: 612.371.5237
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FIG. 52

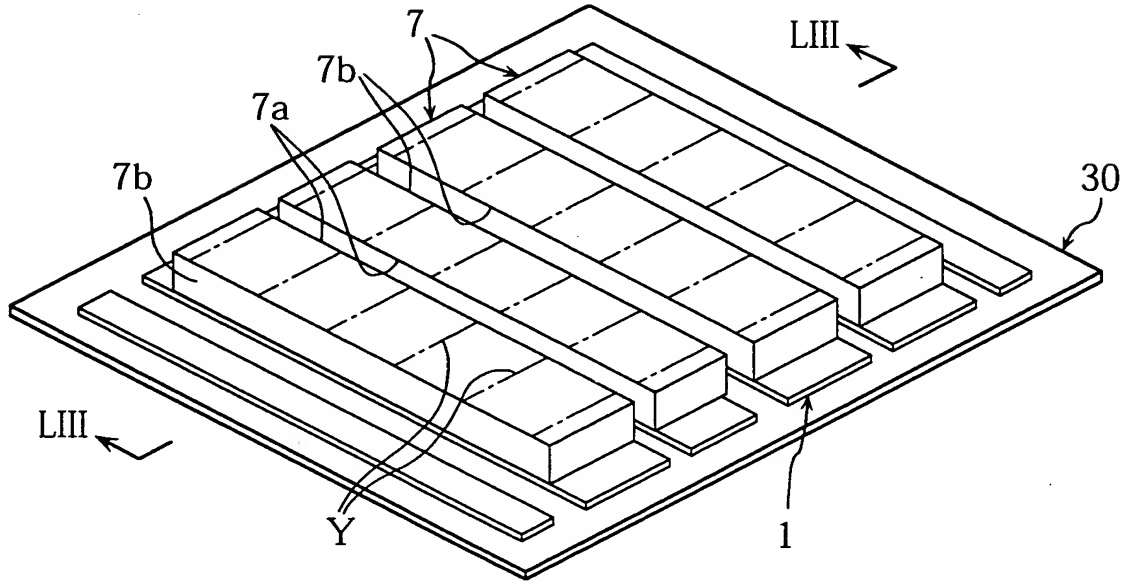
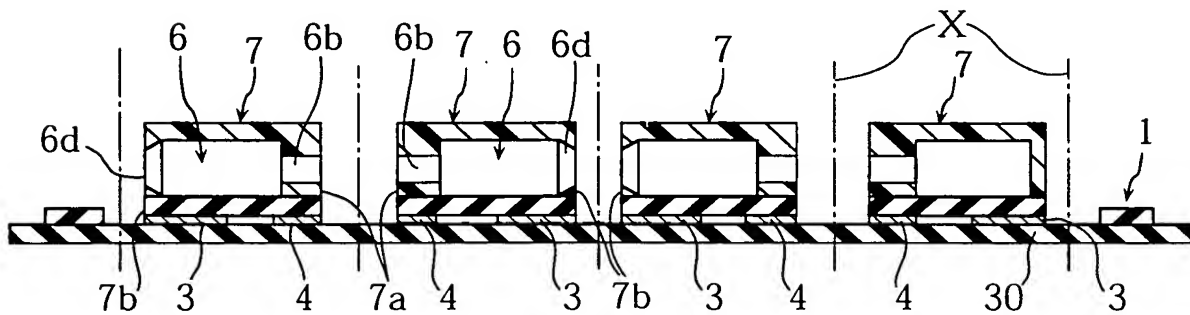


FIG. 53



APPROVED	O.G. FIG.	
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Inventor: Kuriyama, Chojiro
Docket No.: 10921.90USD1
TITLE: PACKAGED SOLID ELECTROLYTIC CAPACITOR AND METHOD OF MAKING THE SAME
Attorney Name: Douglas P. Mueller
Phone No.: 612.371.5237
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FIG. 54

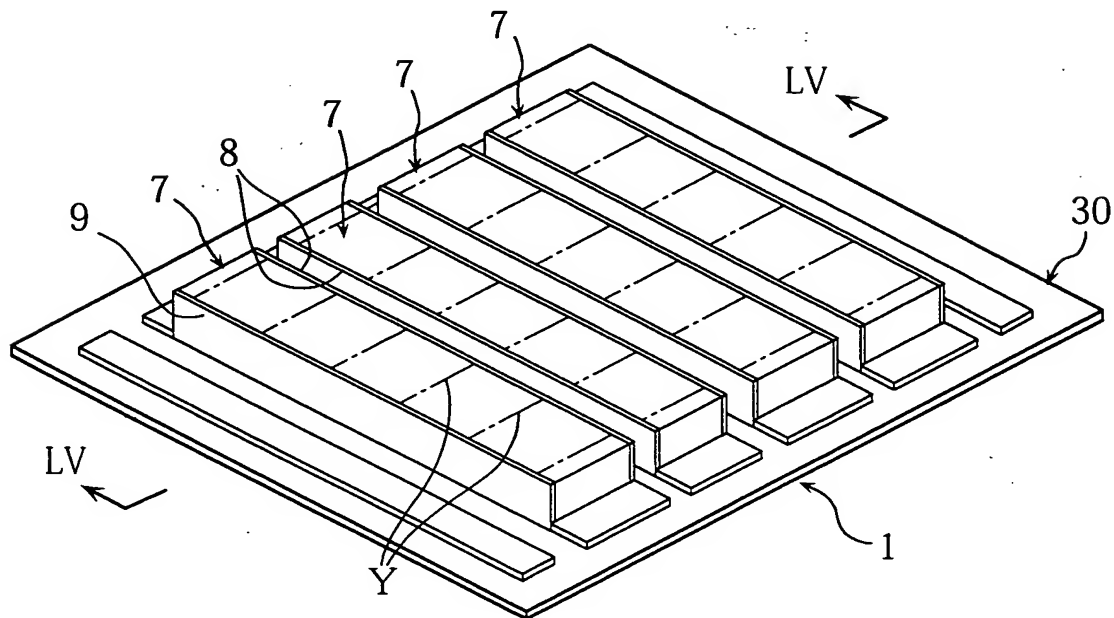
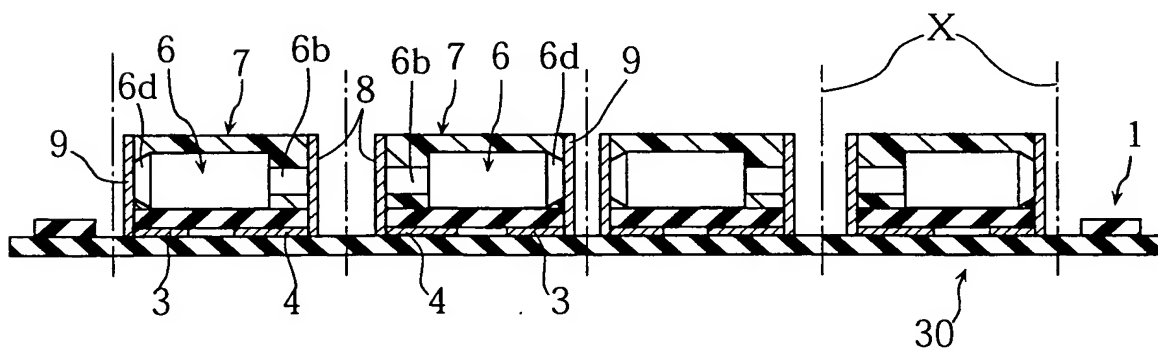


FIG. 55



APPROVED	O.G. FIG.
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FIG. 56

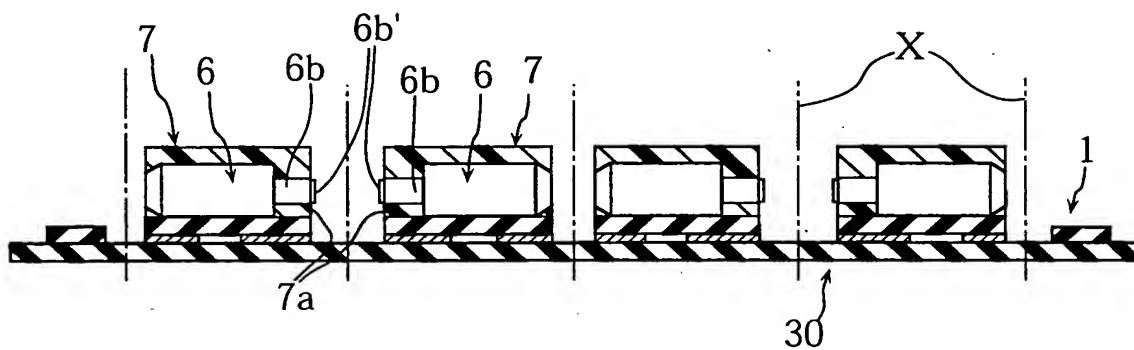
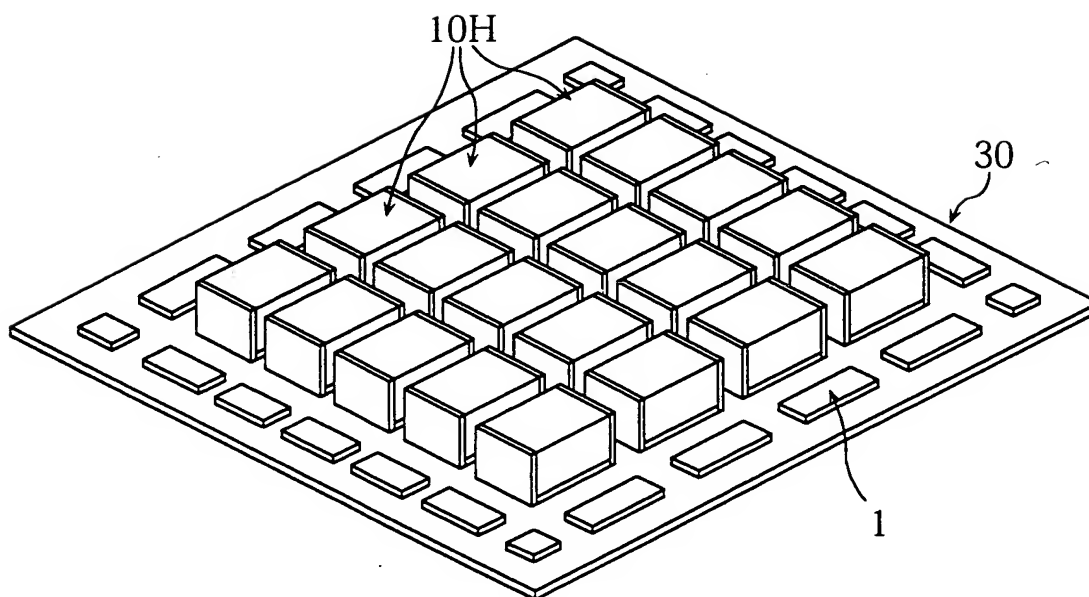


FIG. 57



APPROVED	O.G. FIG.
BY	CLASS SUBCLASS
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FIG. 58

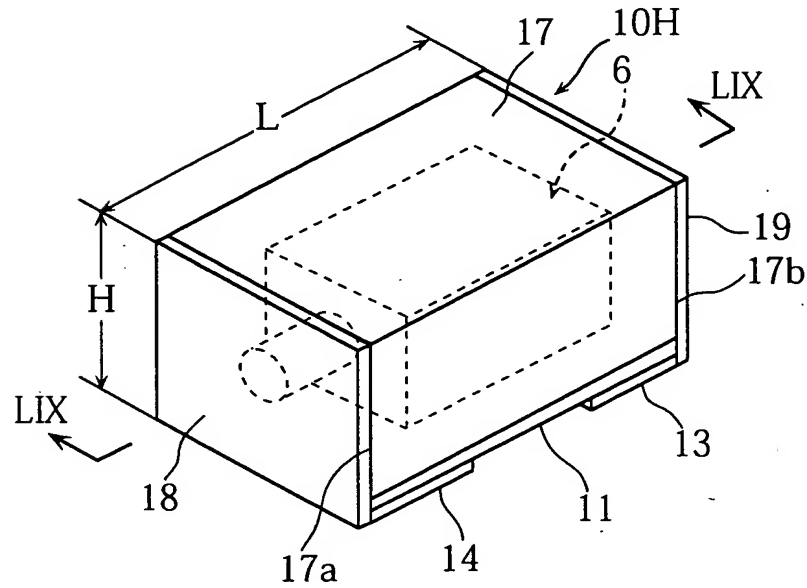
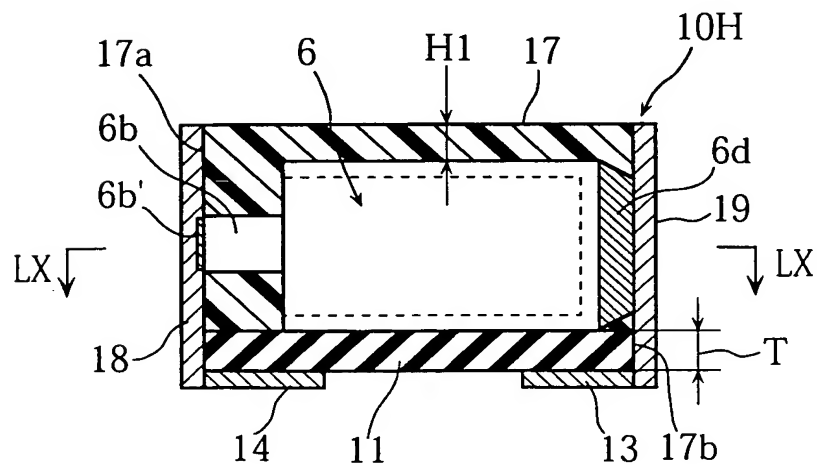


FIG. 59



APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
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FIG. 60

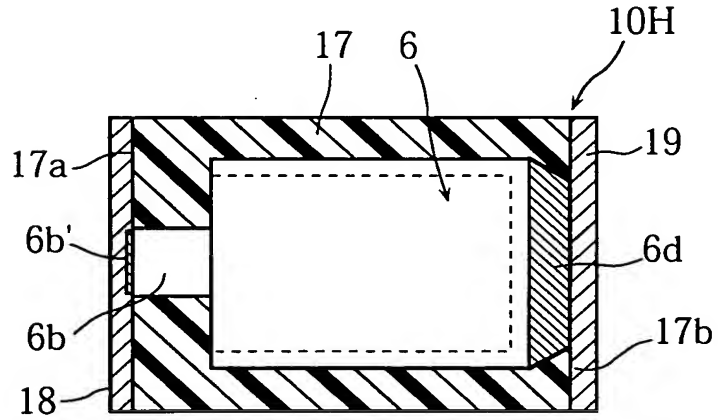


FIG. 61

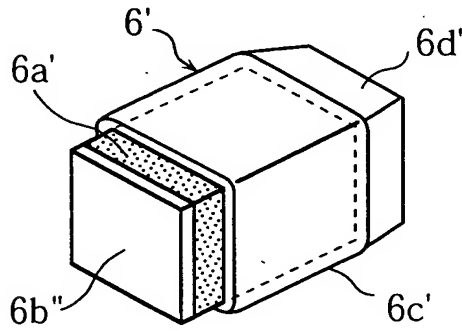
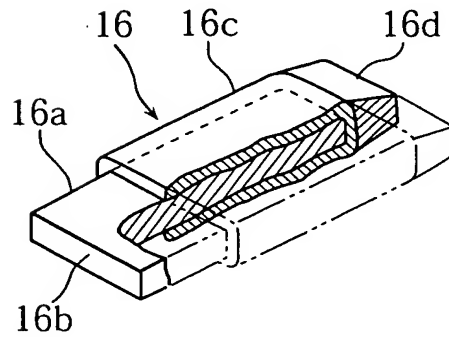


FIG. 62



10008934-110901

APPROVED	O.G. FIG.	
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Inventor: Kuriyama, Chojiro
Docket No.: 10921.90USD1
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AME
Attorney Name: Douglas P. Mueller
Phone No.: 612.371.5237
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FIG. 63

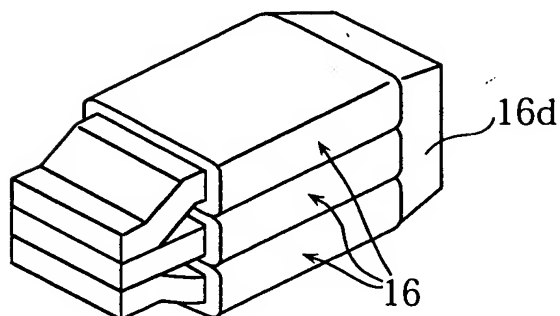
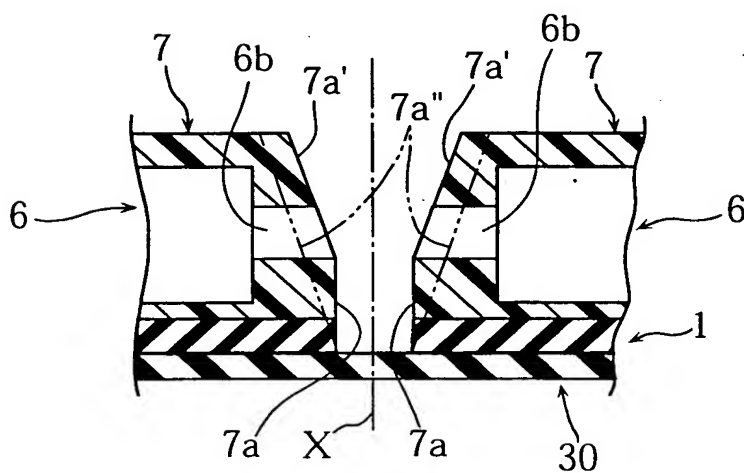


FIG. 64



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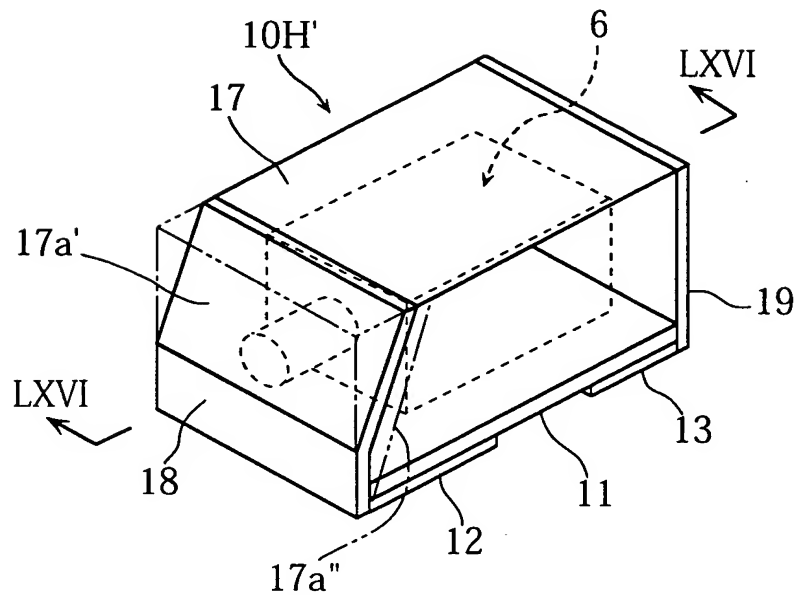
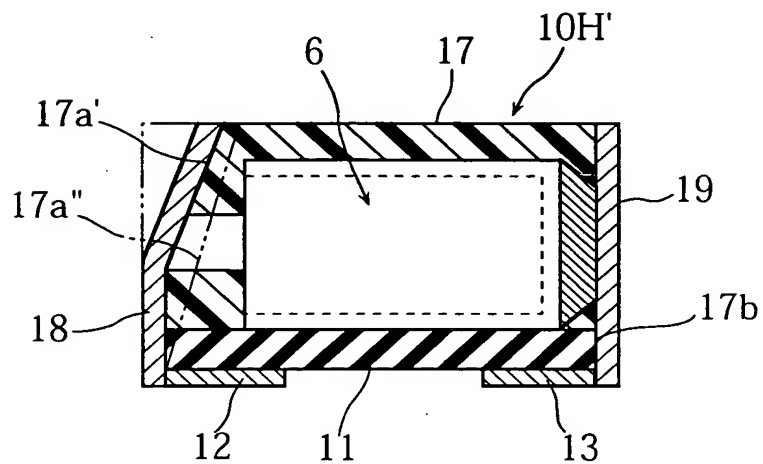


FIG. 66



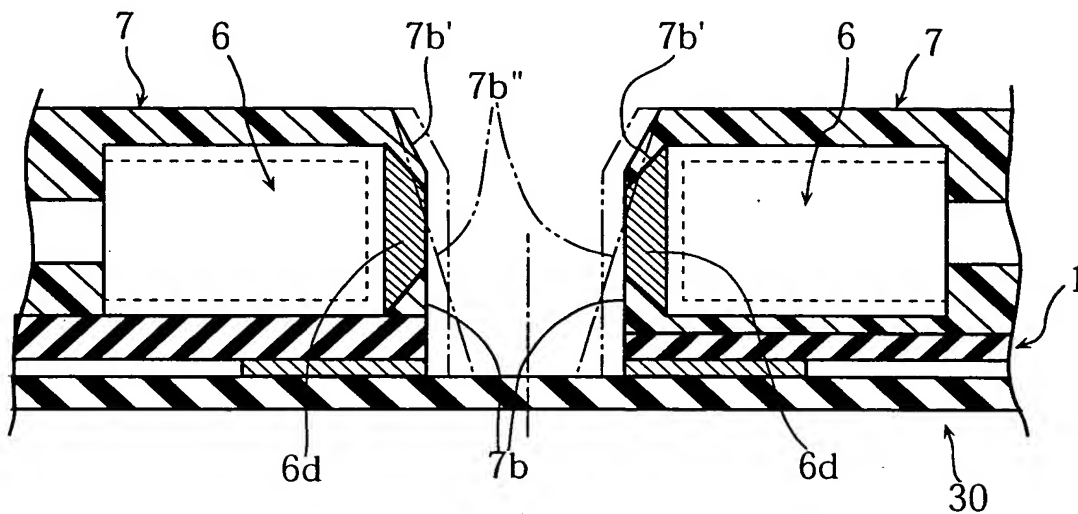
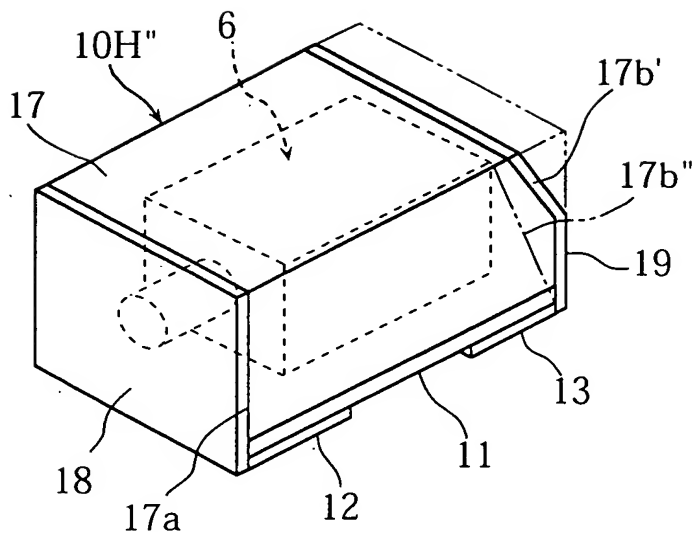


FIG. 68



APPROVED	O.G. FIG.
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FIG. 71

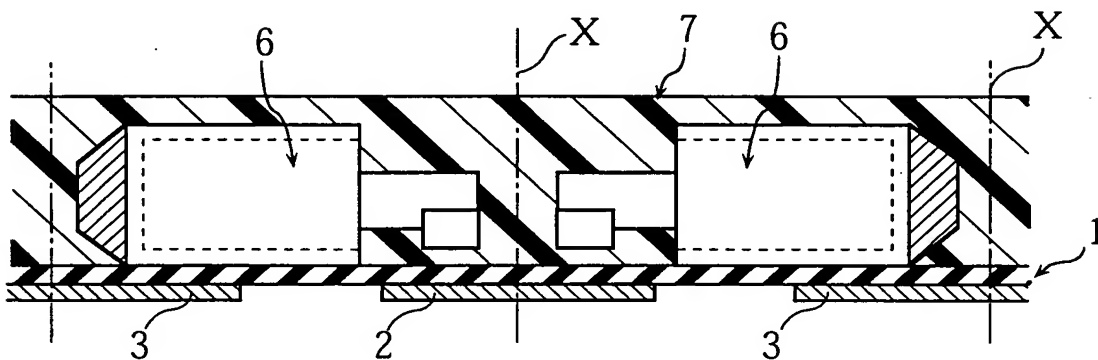
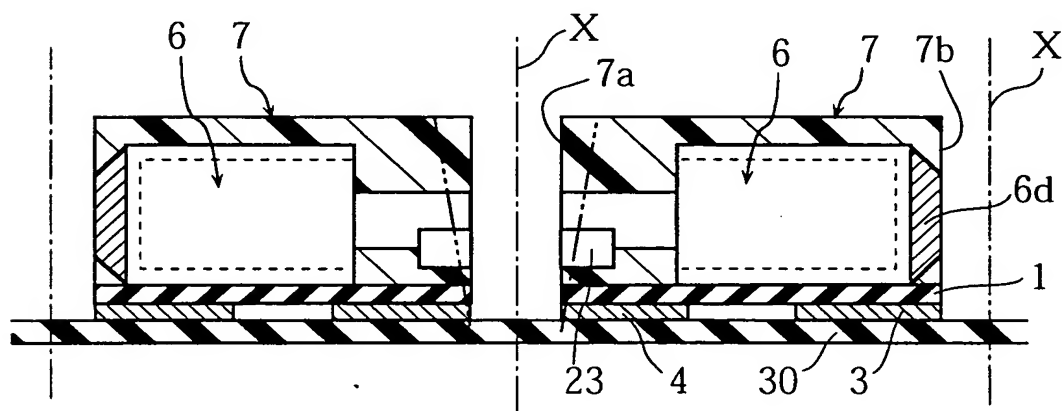


FIG. 72



APPROVED	O.G. FIG.	
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Docket No.: 10921.90USD1
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Attorney Name: Douglas P. Mueller
Phone No.: 612.371.5237
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FIG. 73

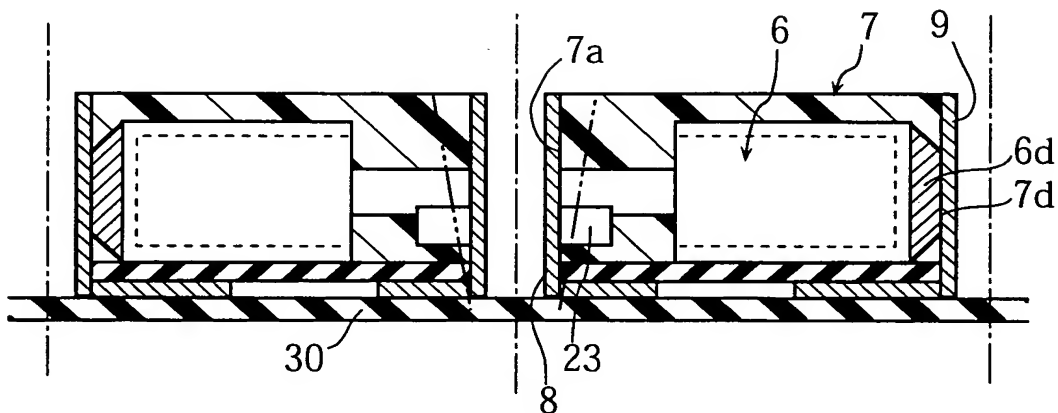


FIG. 74

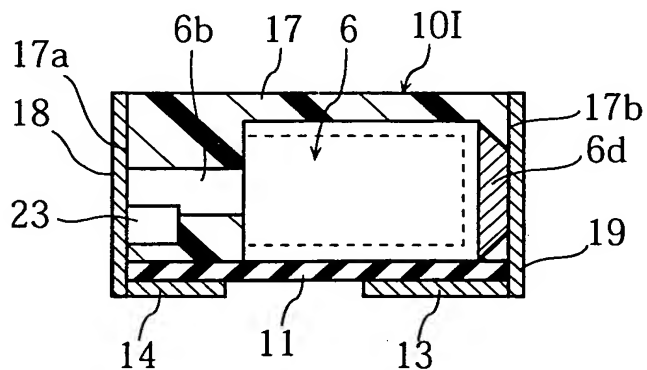
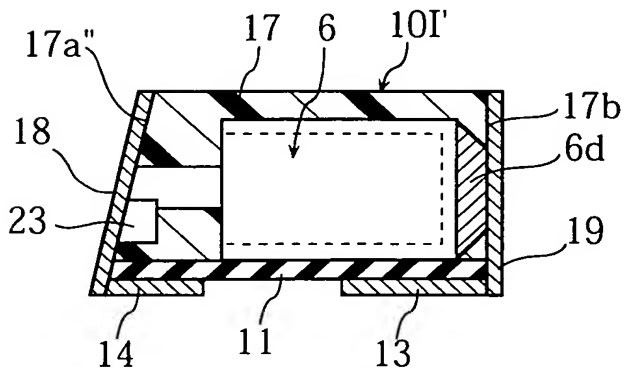


FIG. 75



106011-4E680001

APPROVED	O.G. FIG.	
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Inventor: Kuriyama, Chojiro
Docket No.: 10921.90USD1
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Attorney Name: Douglas P. Mueller
Phone No.: 612.371.5237
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FIG. 78

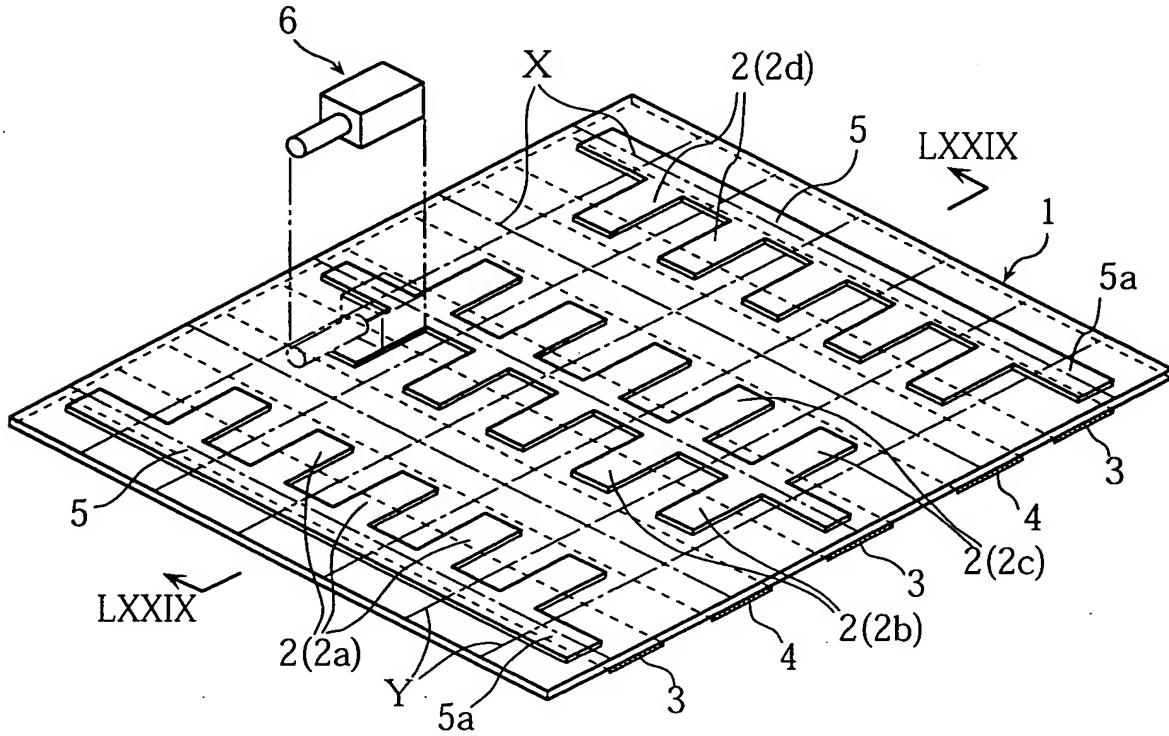


FIG. 79

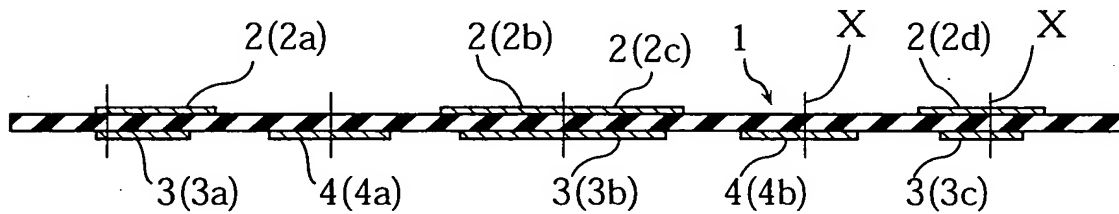
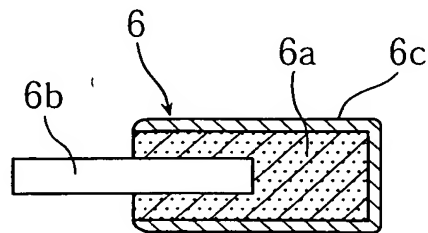


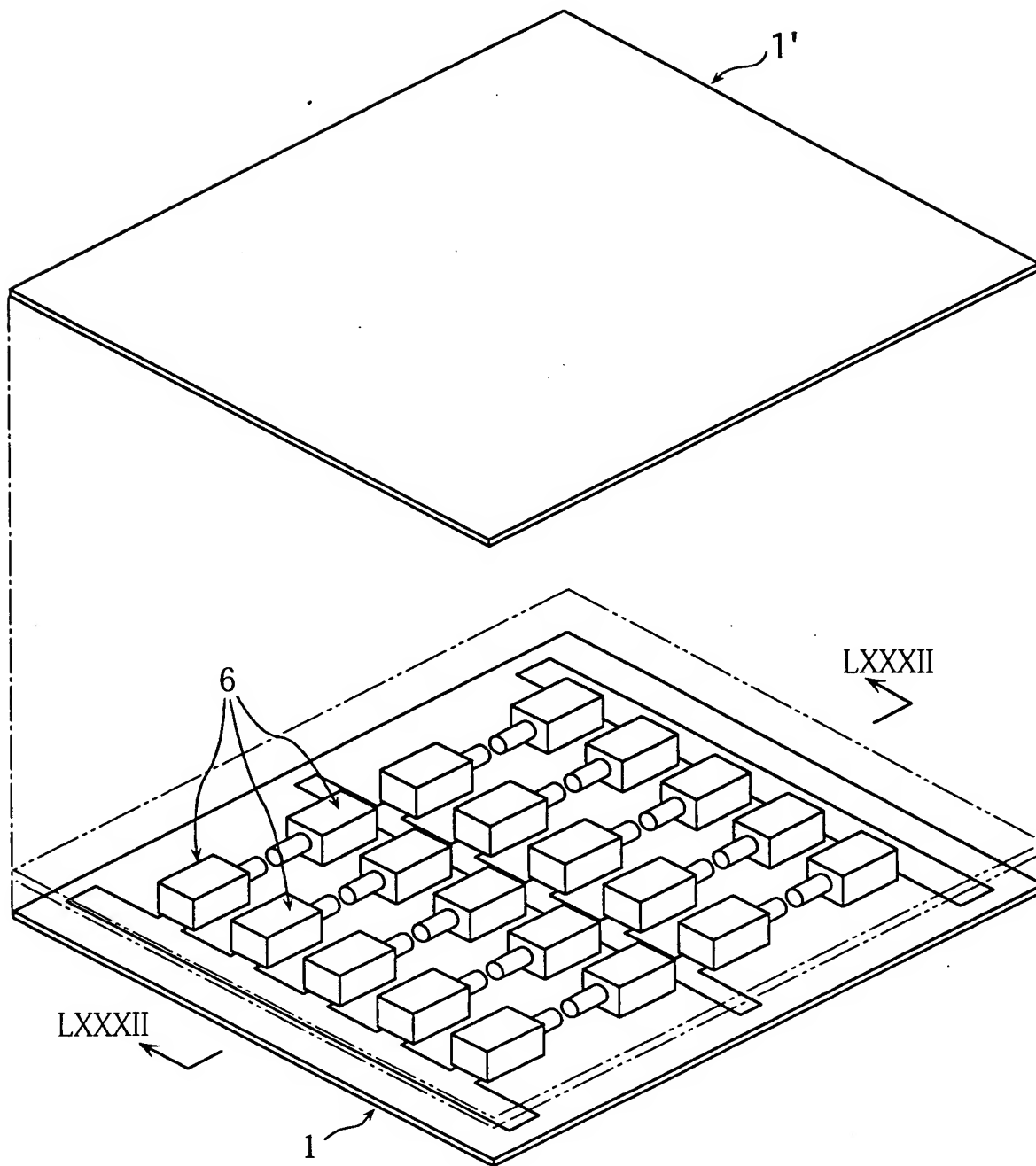
FIG. 80



APPROVED	O.G. FIG.
BY	CLASS/SUBCLASS
DRAFTSMAN	

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FIG. 81



10008934-110901

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

Inventor: Kuriyama, Chojiro
 Doct No.: 10921.90USD1
 TITLE: PACKAGED SOLID ELECTROLYTIC CAPACITOR AND METHOD OF MAKING
 ATTORNEY: Douglas P. Mueller
 Phone No.: 612.371.5237
 Sheet 37 of 73

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FIG. 82

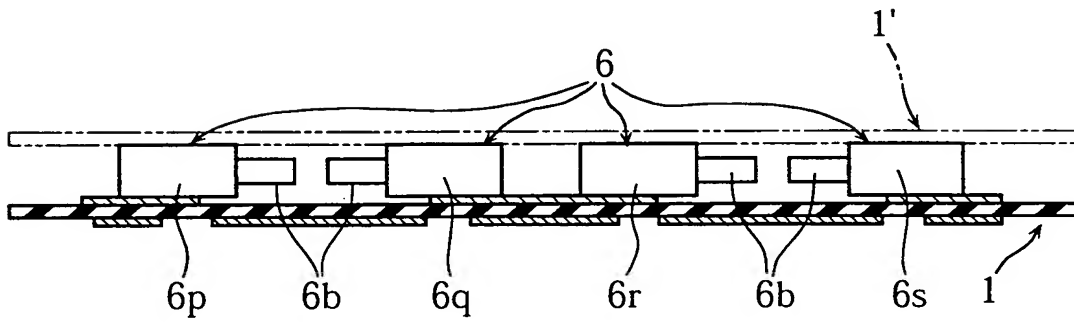
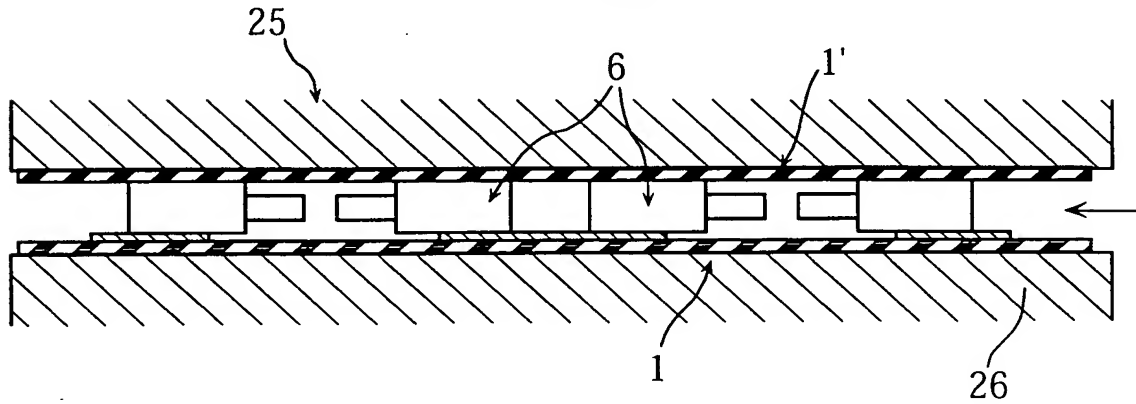


FIG. 83



10008934-110901

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

Inventor: Kuriyama, Chojiro
Docket No.: 10921.90USD1
Title: PACKAGED SOLID ELECTROLYTIC CAPACITOR AND METHOD OF MAKING THE SAME
Attorney Name: Douglas P. Mueller
Phone No.: 612.371.5237
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FIG. 84

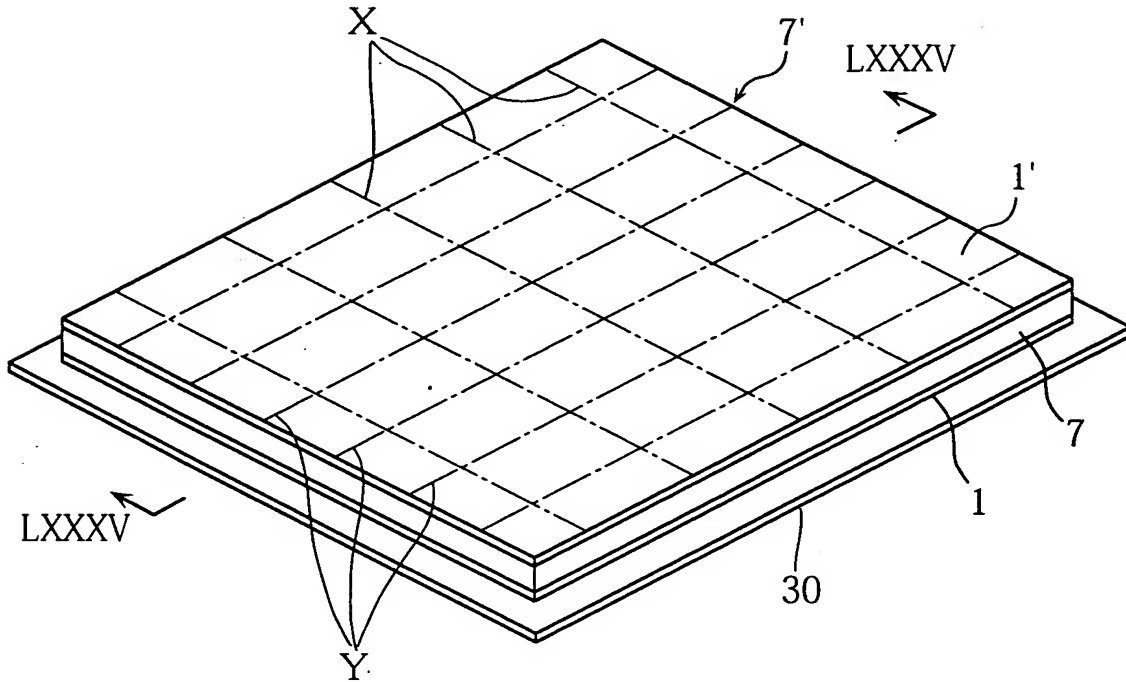
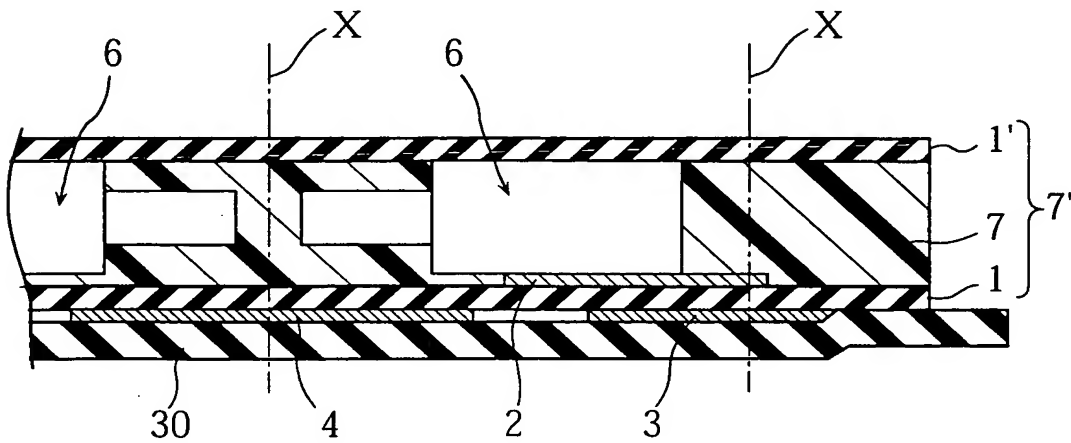


FIG. 85



1008934-110901

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

Inventor: Kuriyama, Chojiro
Docket No.: 10921.90USD1
Title: PACKAGED SOLID ELECTROLYTIC CAPACITOR AND METHOD OF MAKING THE SAME
Attorney Name: Douglas P. Mueller
Phone No.: 612.371.5237
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FIG. 86

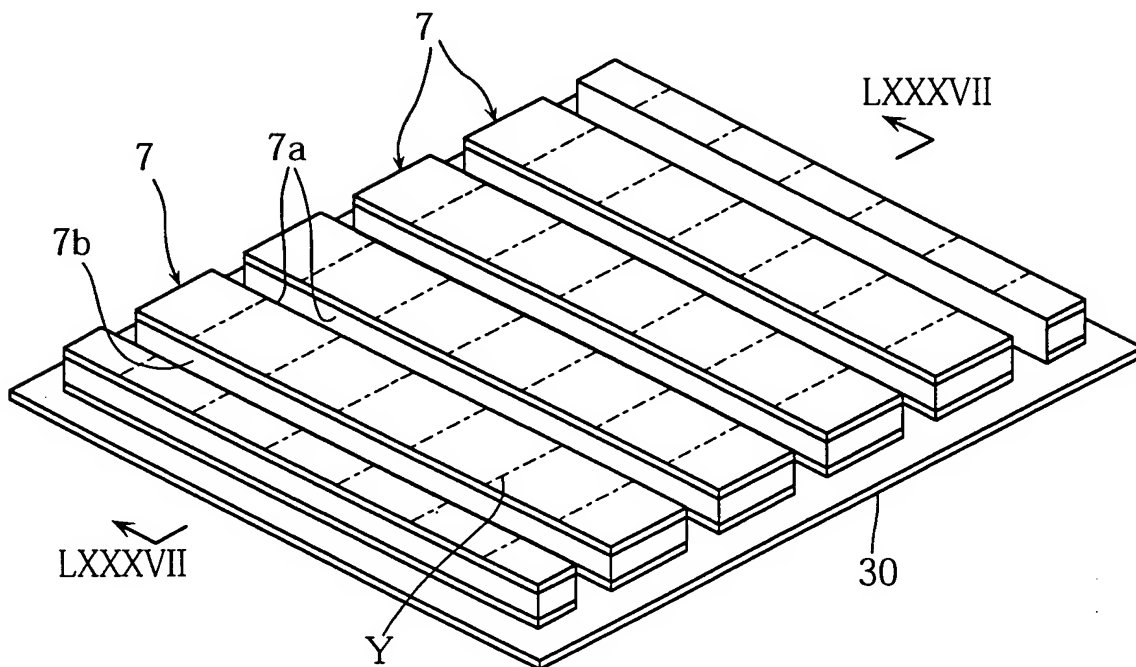


FIG. 87

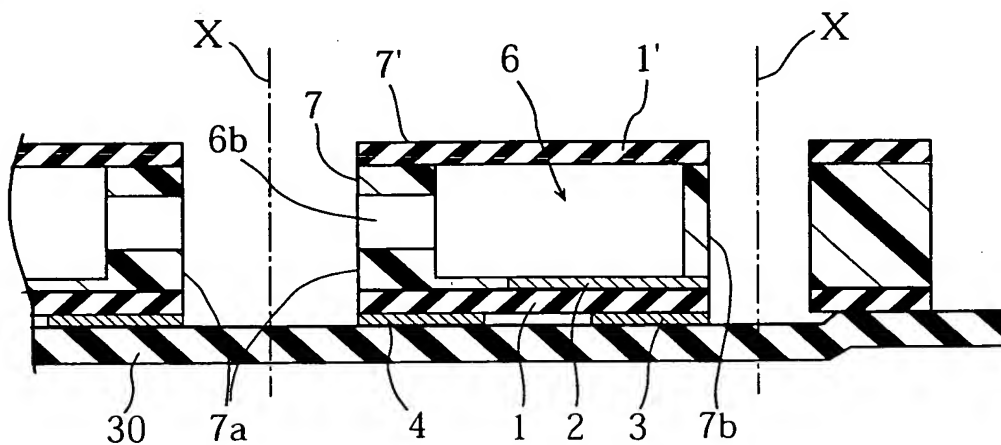


FIG. 86

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FIG. 88

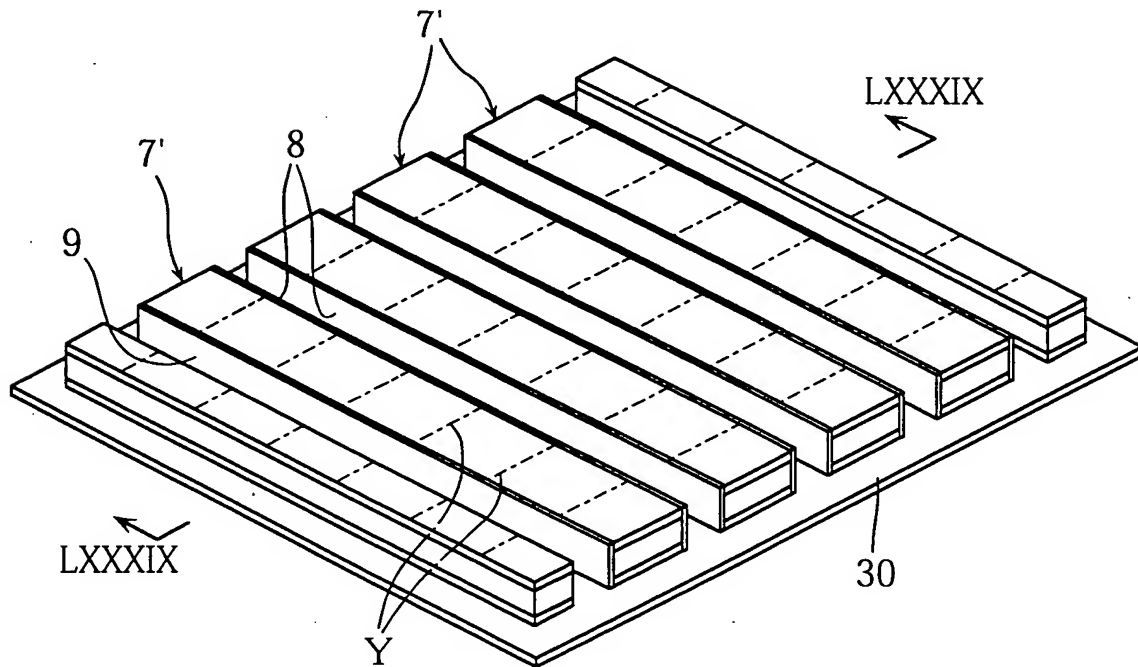
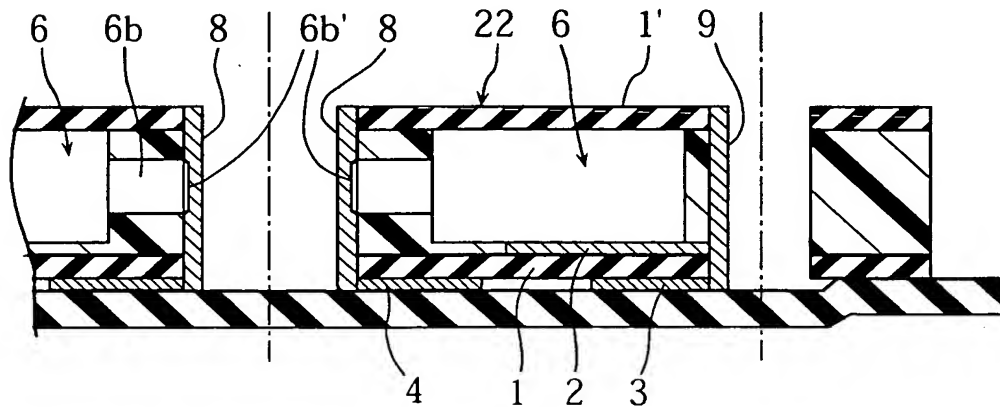


FIG. 89



APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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FIG. 90

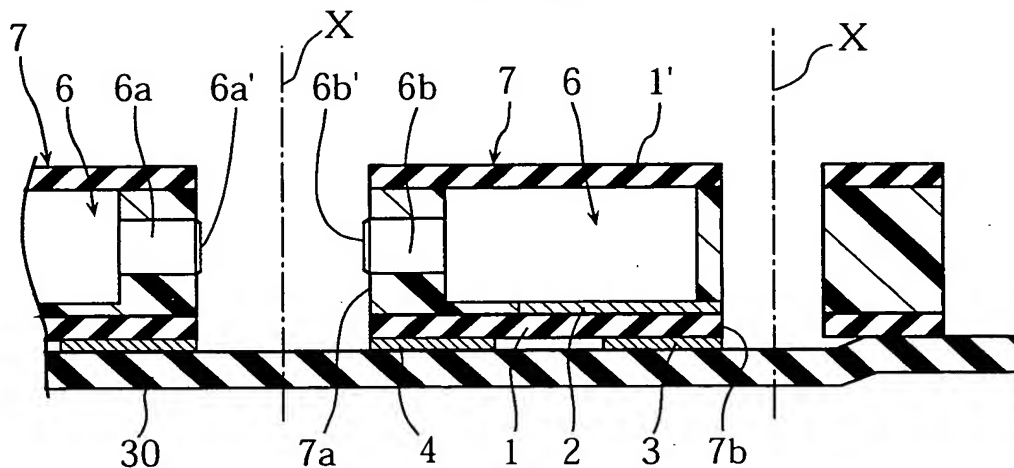
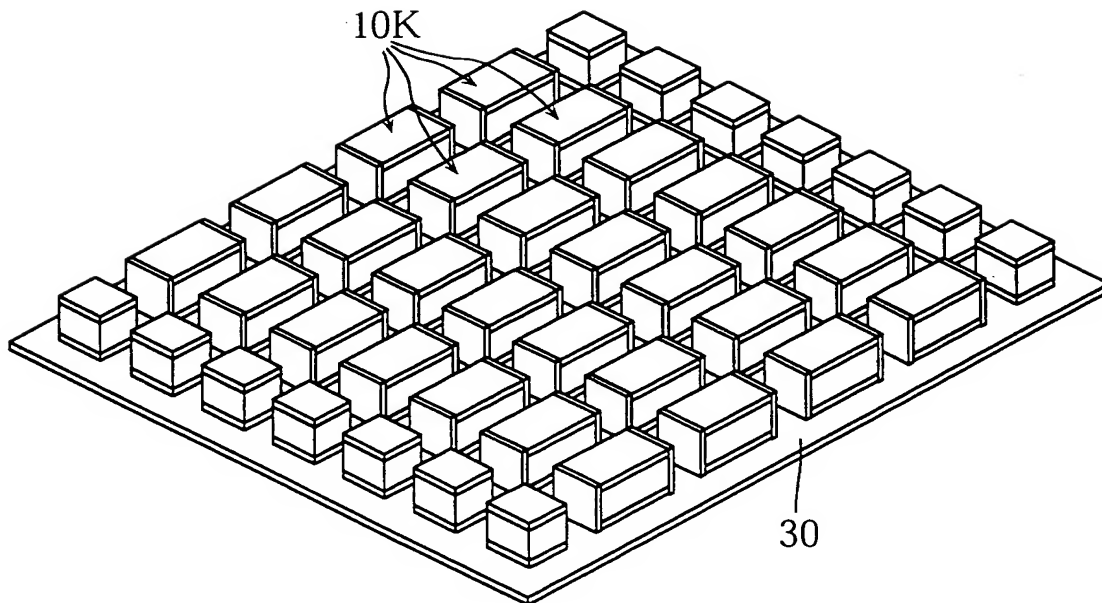
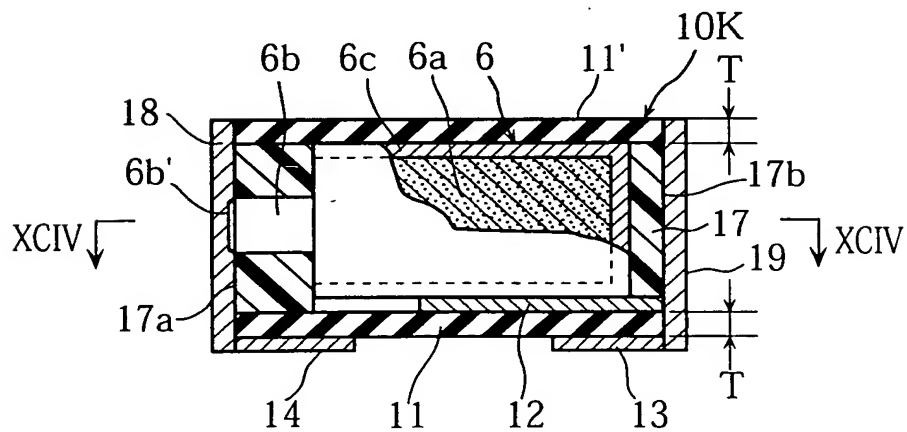
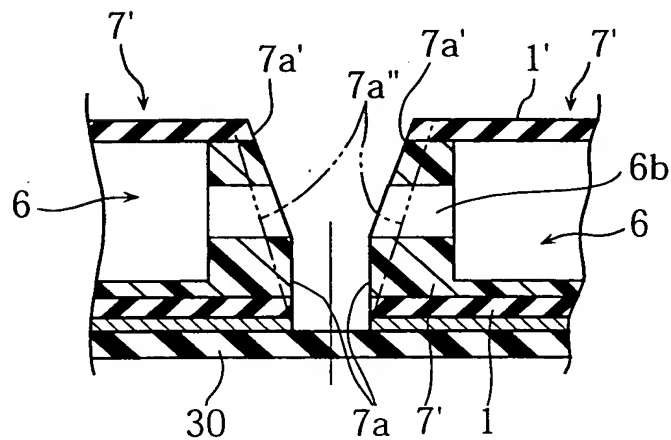
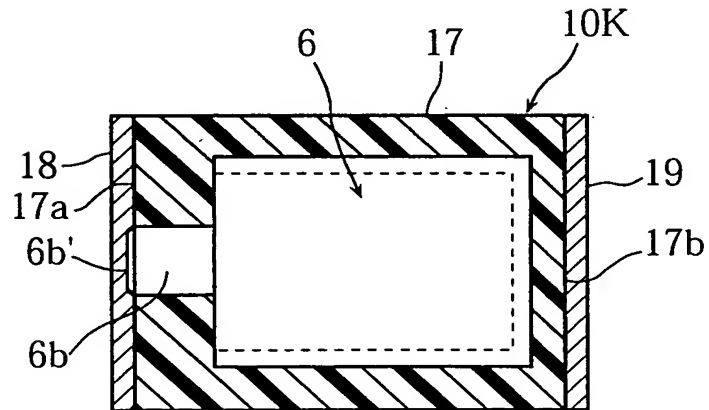


FIG. 91



1000934-110001





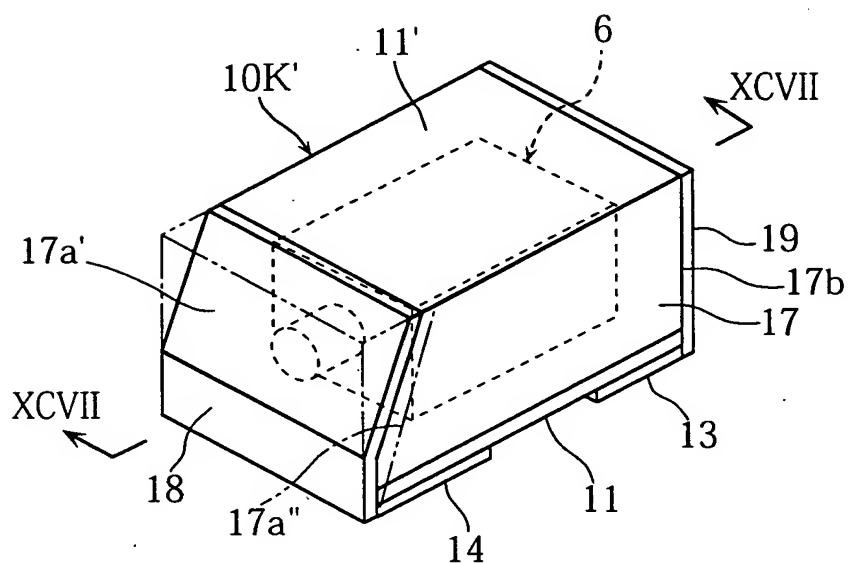
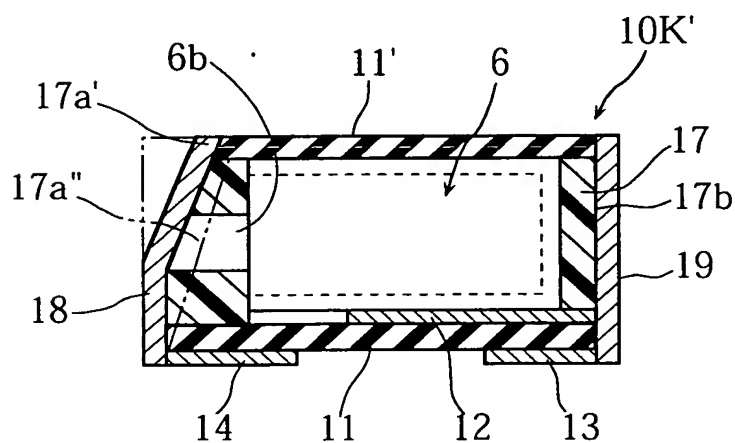


FIG. 97



APPROVED	O.G. FIG.
BY	CLASS SUBCLASS
DRAFTSMAN	

Inventor: Kuriyama, Chojiro
Docket No.: 10921.90USD1
TITLE: PACKAGED SOLID ELECTROLYTIC CAPACITOR AND METHOD OF MAKING THE SAME
Attorney Name: Douglas P. Mueller
Phone No.: 612.371.5237
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FIG. 98

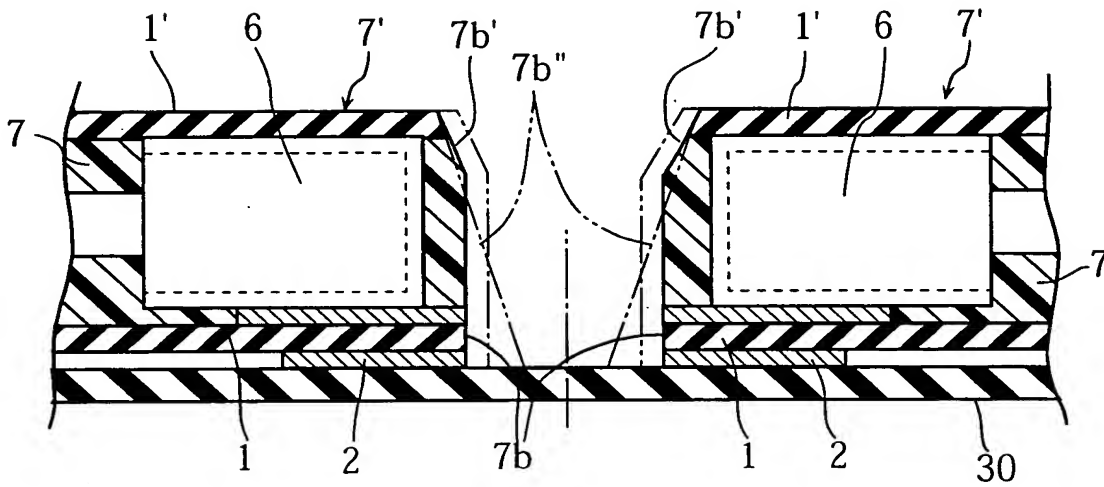
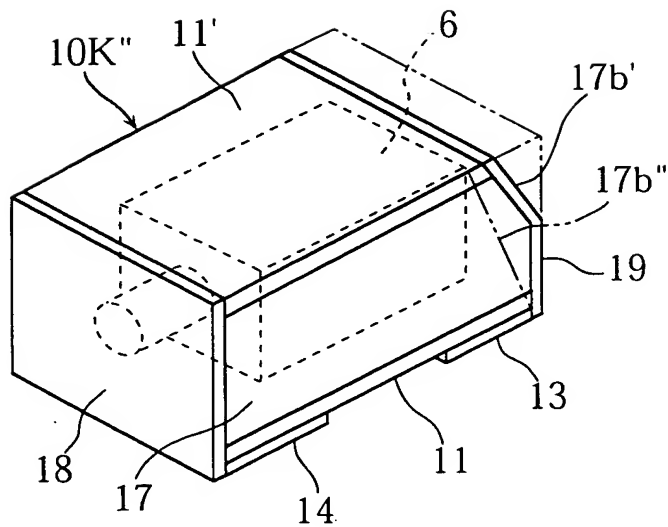


FIG. 99



APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

Inventor: Kuriyama, Chojiro
 Doc. No.: 10921.90USD1
 TITLE: PACKAGED SOLID ELECTROLYTIC CAPACITOR AND METHOD OF MAKING THE SAME
 Attorney Name: Douglas P. Mueller
 Phone No.: 612.371.5237
 Sheet 48 of 73

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FIG. 102

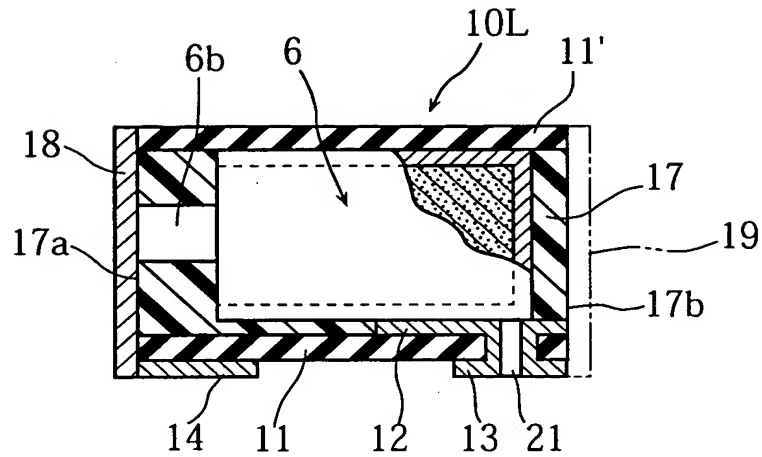


FIG. 103

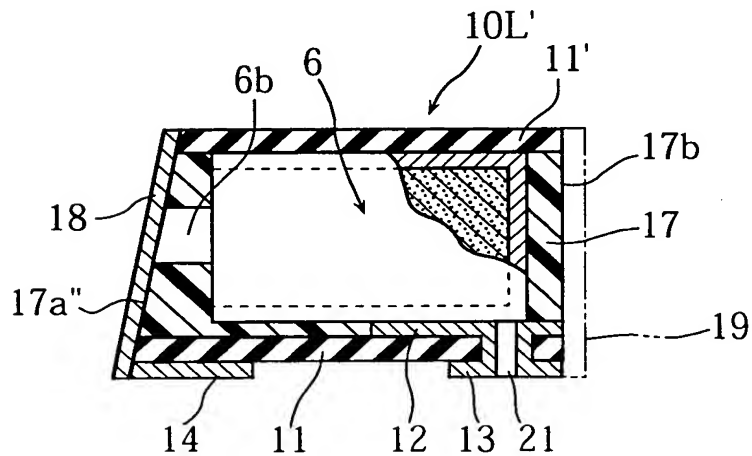


FIG. 102

APPROVED	O.G. FIG.
BY	CLASS SUBCLASS
DRAFTSMAN	

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FIG. 104

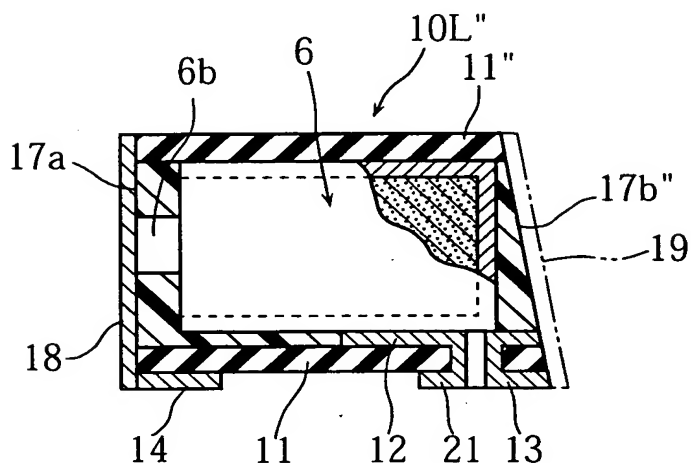
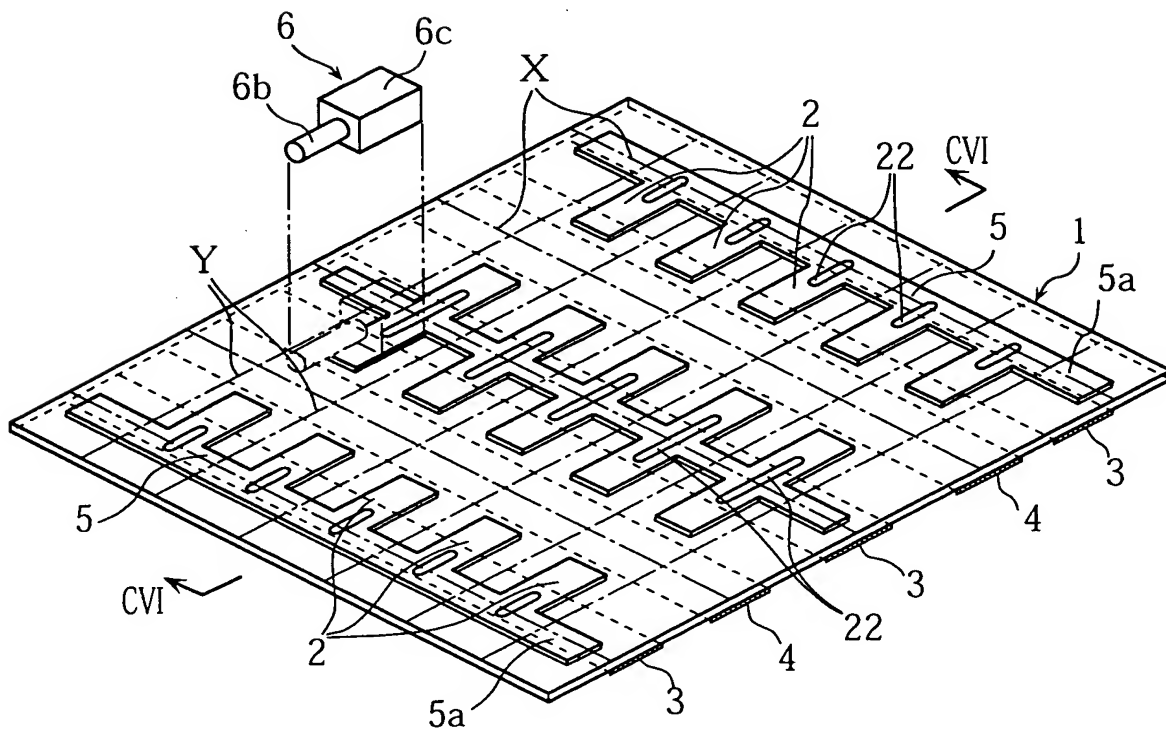


FIG. 105



APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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FIG. 106

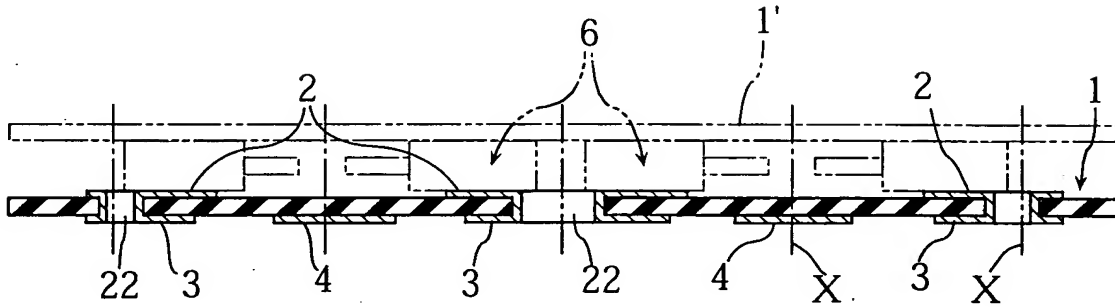


FIG. 107

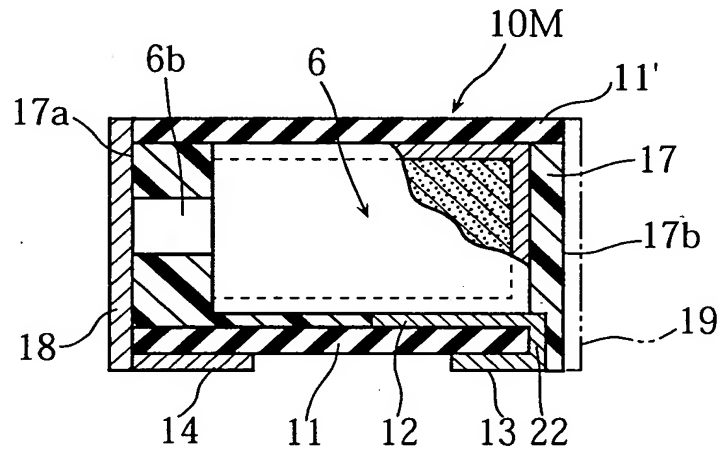
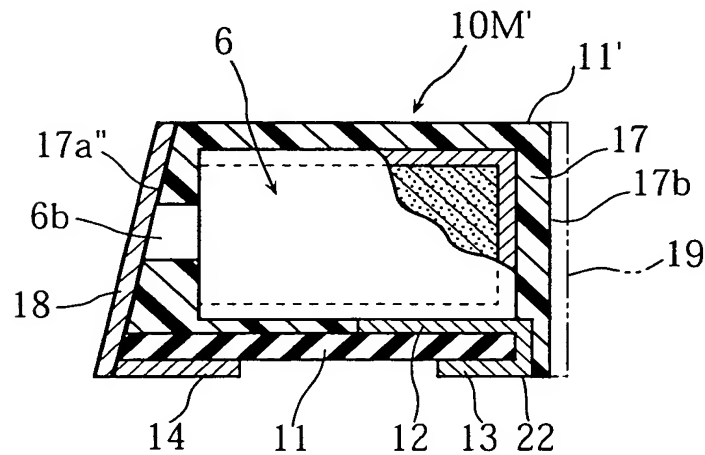


FIG. 108



10086934-110901

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

Inventor: Kuriyama, Chojiro
 Dock No.: 10921.90USD1
 Title: PACKAGED SOLID ELECTROLYTIC CAPACITOR AND METHOD OF MAKING THE SAME
 Attorney Name: Douglas P. Mueller
 Phone No.: 612.371.5237
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FIG. 109

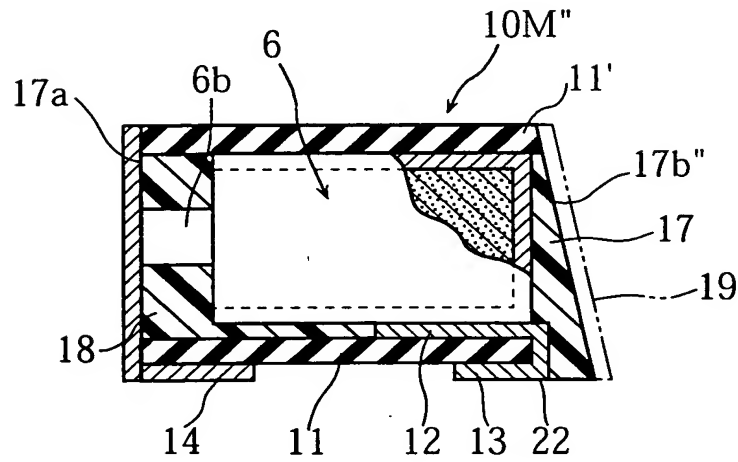


FIG. 110

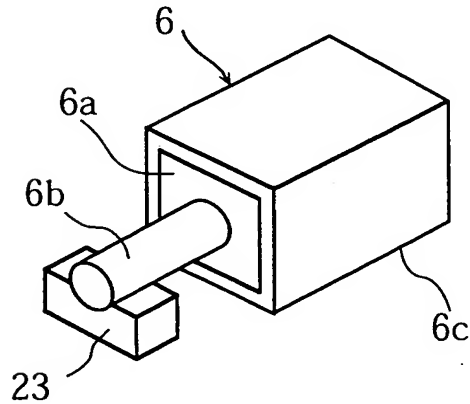
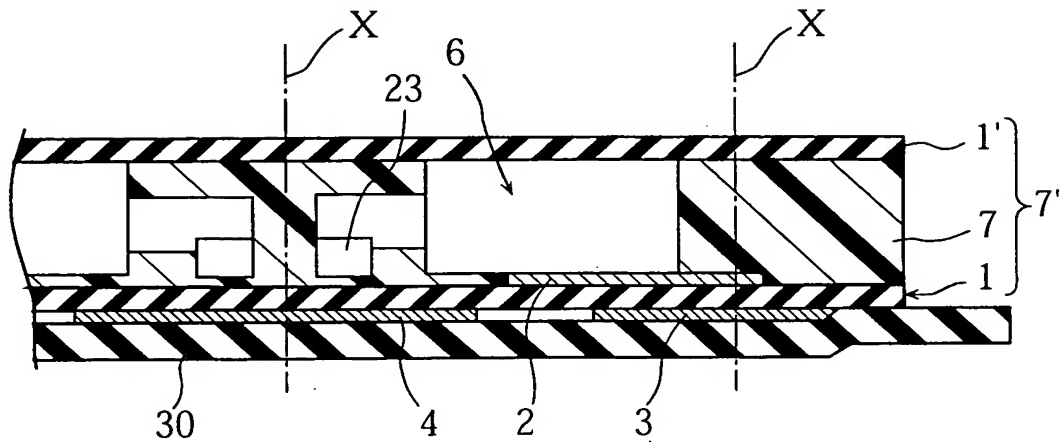


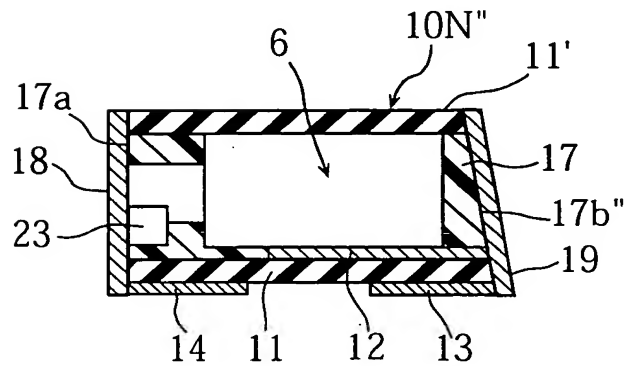
FIG. 111



1000934-10001

This cross-sectional view shows a central rectangular region 6, which is a cavity or well. It is surrounded by a frame-like structure consisting of layers 7 and 7'. The entire structure is built on a base 1. Various other layers and structures are labeled with numbers 1 through 7b and 30. Dashed lines X-X' indicate the plane of the cross-section.

This cross-sectional view shows the device structure along line X-X. It features a substrate 30 with a base layer 2. A central region 6 is defined by a top layer 7 and a bottom layer 6b. A side layer 8 is positioned between the central region 6 and the substrate 30. A layer 9 is located on the right side of the central region 6. The device is flanked by two hatched regions, likely representing contact pads or bonding areas. Labels 7a and 7b indicate specific points or layers at the bottom of the central region 6. A dashed line X-X indicates the plane of the cross-section.



APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

Inventor: Kuriyama, Chojiro
Docket No.: 10921.90USD1
TITLE: PACKAGED SOLID ELECTROLYTIC CAPACITOR AND METHOD OF MAKING
THE SAME
Attorney Name: Douglas P. Mueller
Phone No.: 612.371.5237
Sheet 54 of 73

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FIG. 117

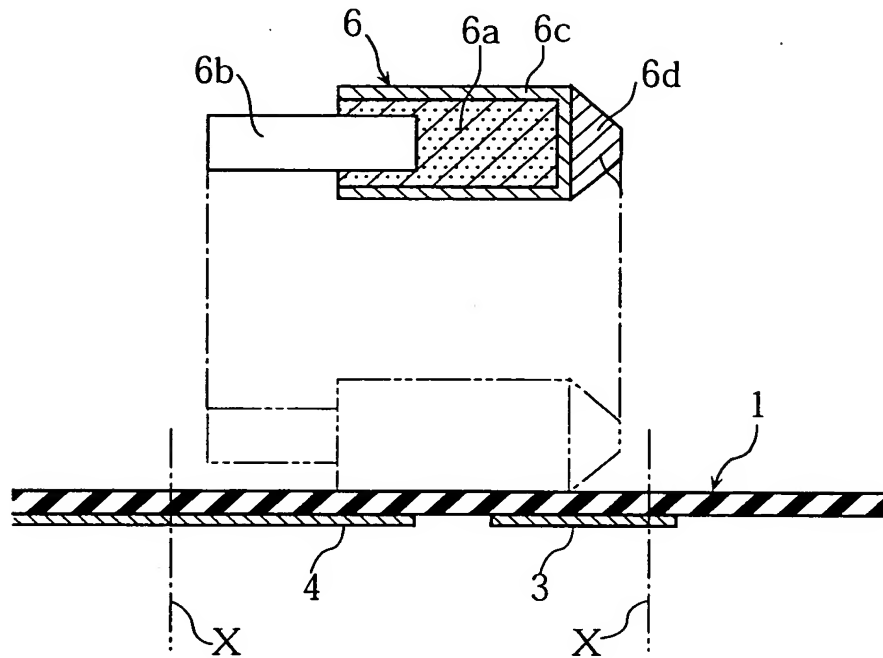
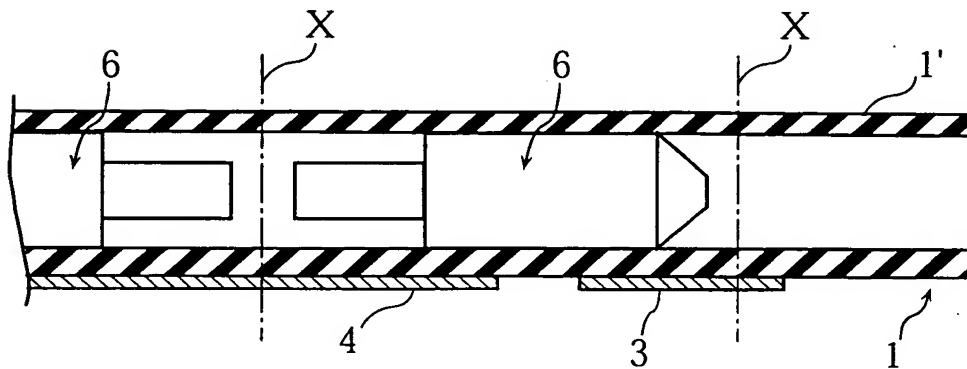


FIG. 118



APPROVED	O.G. FIG.
BY	CLASS SUBCLASS
DRAFTSMAN	

Inventor: Kuriyama, Chojiro
Docket No.: 10921.90USD1
Title: PACKAGED SOLID ELECTROLYTIC CAPACITOR AND METHOD OF MAKING THE SAME
Attorney Name: Douglas P. Mueller
Phone No.: 612.371.5237
Sheet 55 of 73

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FIG. 119

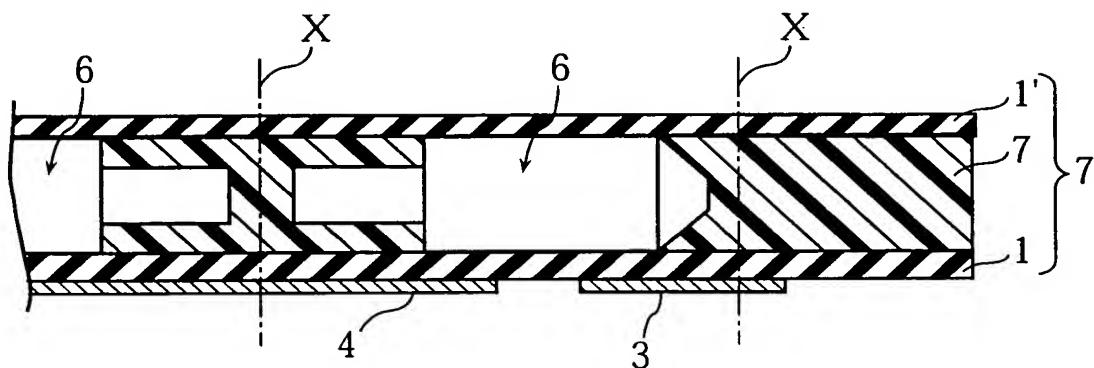
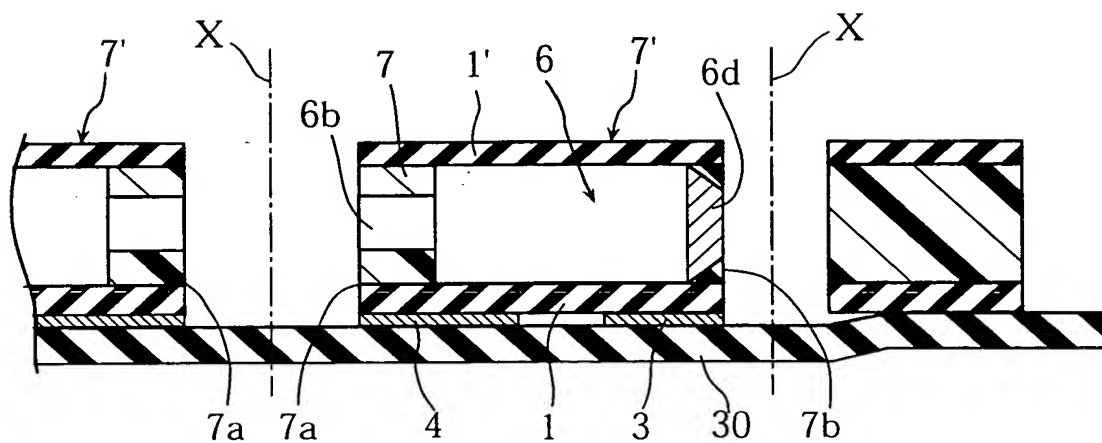


FIG. 120



10006934-110903

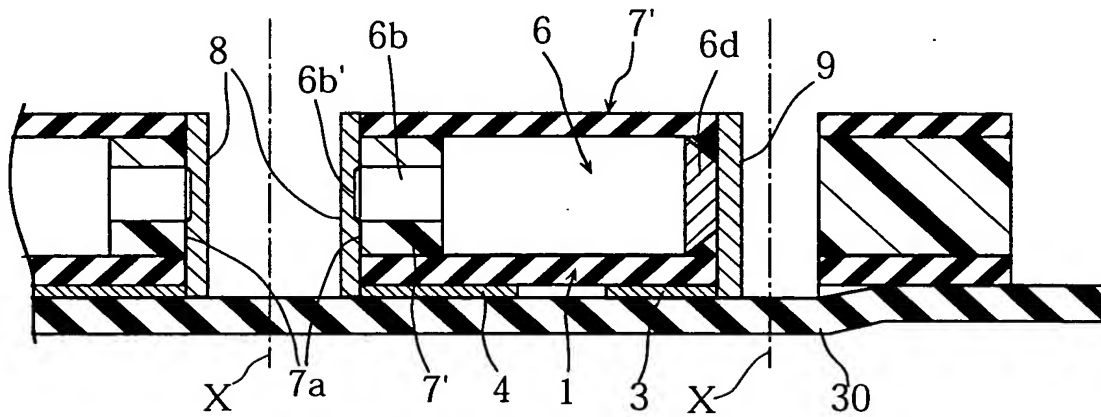
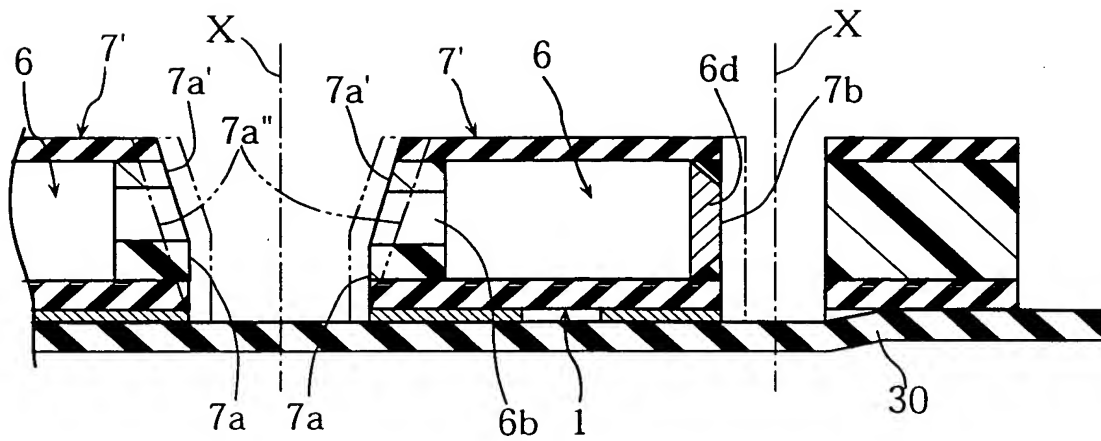


FIG. 122



APPROVED	O.G. FIG.
BY	CLASS SUBCLASS
DRAFTSMAN	

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FIG. 123

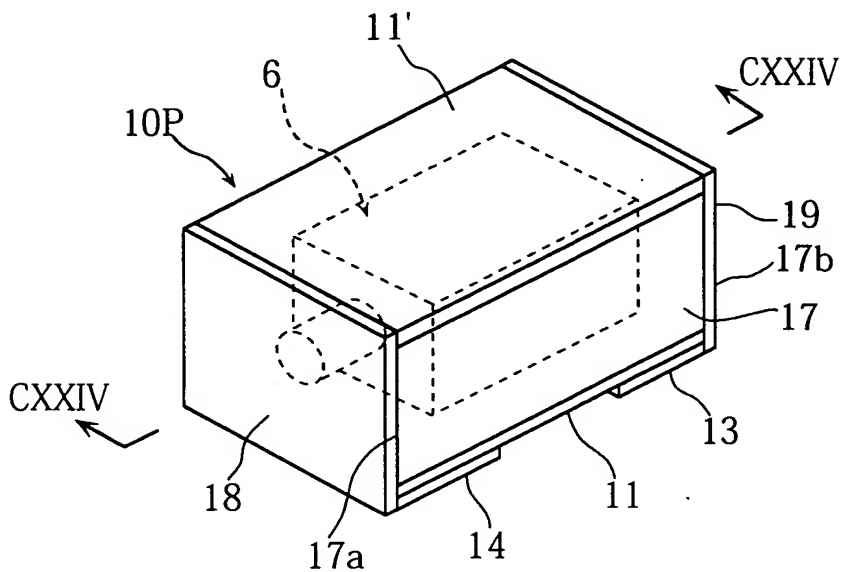
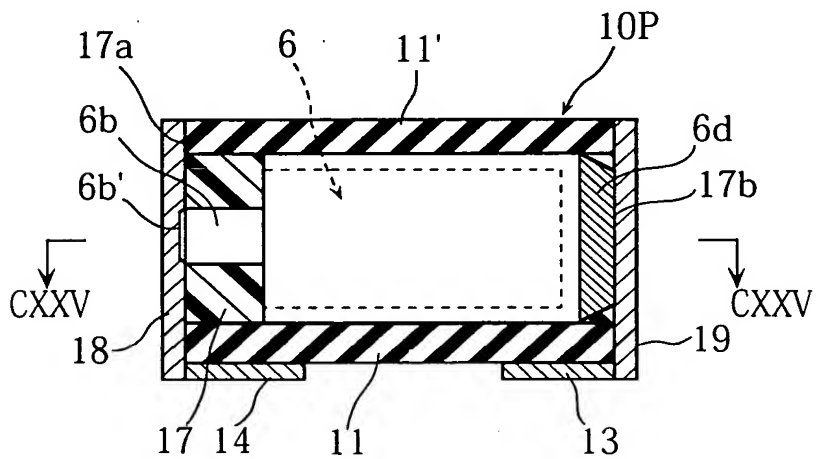


FIG. 124



10008934-110901

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

Inventor: Kuriyama, Chojiro
 Dock No.: 10921.90USD1
 Title: PACKAGED SOLID ELECTROLYTIC CAPACITOR AND METHOD OF MAKING THE SAME
 Attorney Name: Douglas P. Mueller
 Phone No.: 612.371.5237
 Sheet 58 of 73

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FIG. 125

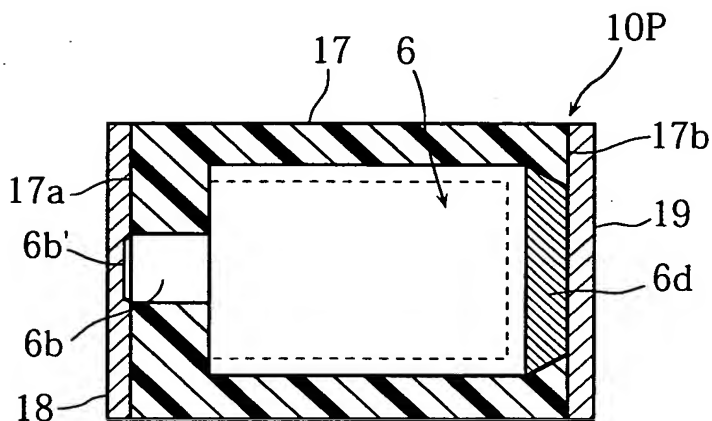
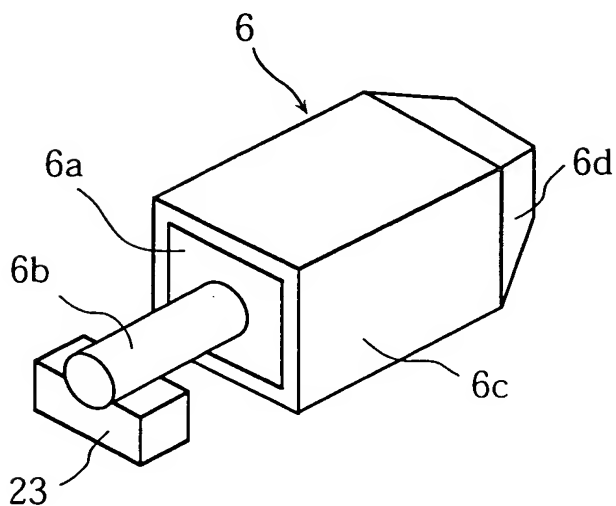


FIG. 126



10008934-110301

APPROVED	O.G. FIG.
BY	CLASS SUBCLASS
DRAFTSMAN	

Inventor: Kuriyama, Chojiro
Docket No.: 10921.90USD1
Title: PACKAGED SOLID ELECTROLYTIC CAPACITOR AND METHOD OF MAKING THE SAME
Attorney Name: Douglas P. Mueller
Phone No.: 612.371.5237
Sheet 59 of 73

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FIG. 127

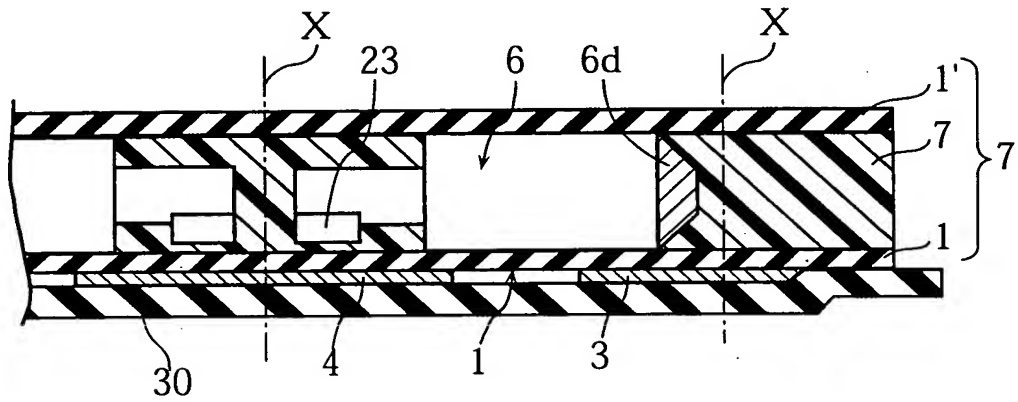
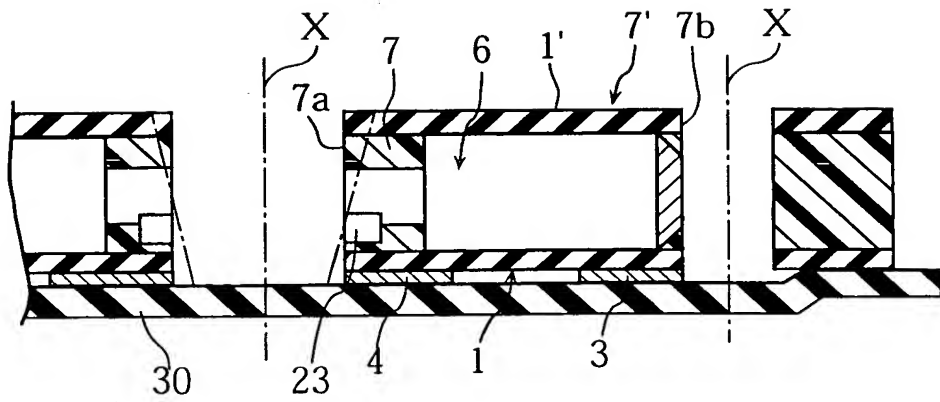
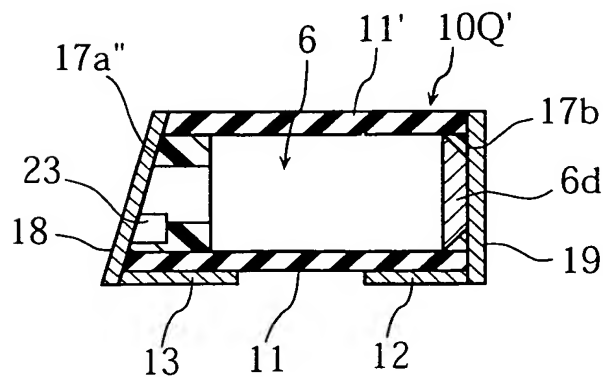


FIG. 128





300094 in 0000

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

Inventor: Kuriyama, Chojiro
 Doc. No.: 10921.90USD1
 THERMALLY PACKAGED SOLID ELECTROLYTIC CAPACITOR AND METHOD OF MAKING
 THE SAME
 Attorney Name: Douglas P. Mueller
 Phone No.: 612.371.5237
 Sheet 62 of 73

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FIG. 134

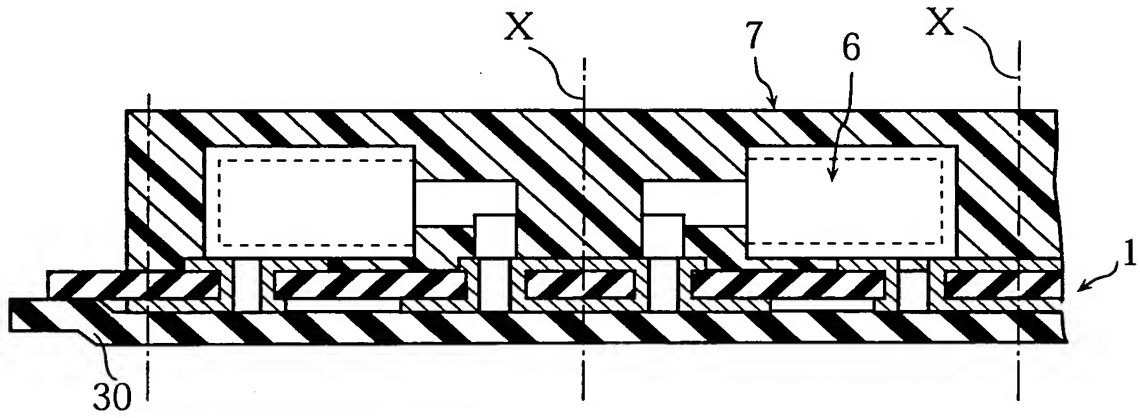
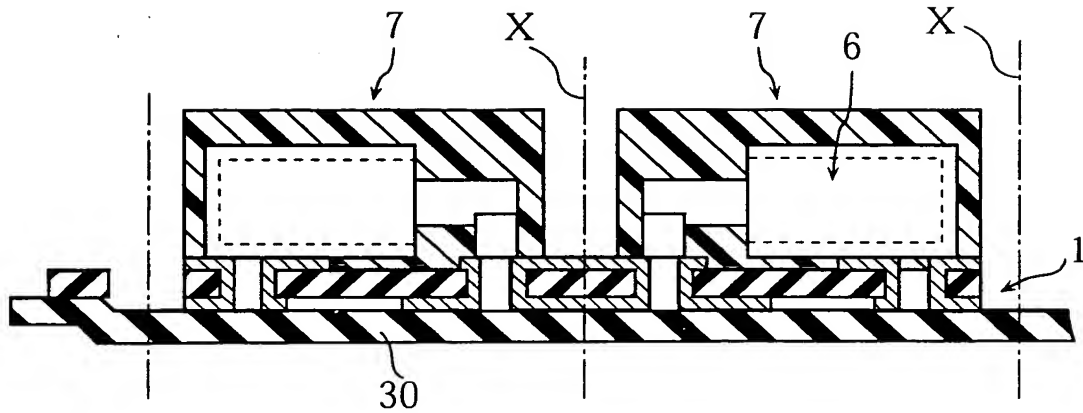


FIG. 135



10008534-10001
 10008534-10001

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

Inventor: Kuriyama, Chojiro
 Drawing No.: 10921.90USD1
 TITLE: PACKAGED SOLID ELECTROLYTIC CAPACITOR AND METHOD OF MAKING THE SAME
 Attorney Name: Douglas P. Mueller
 Phone No.: 612.371.5237
 Sheet 63 of 73

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FIG. 136

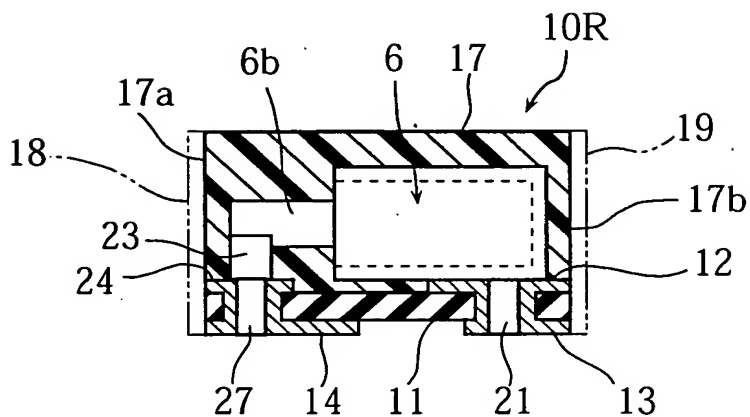
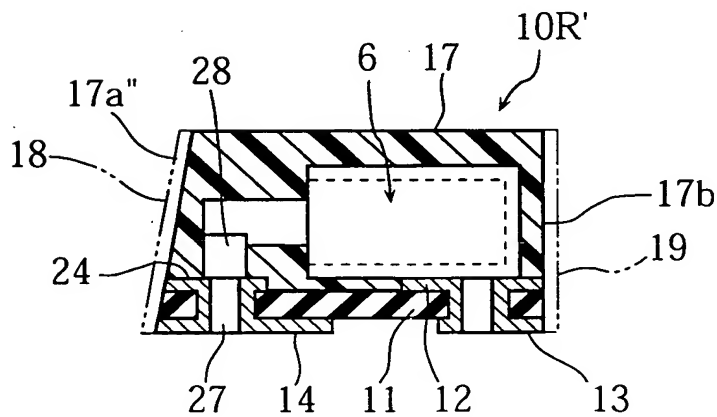


FIG. 137



APPROVED	O.G. FIG.
BY	CLASS SUBCLASS
DRAFTSMAN	

Inventor: Kuriyama, Chojiro
Doc. No.: 10921.90USD1
TITLE: PACKAGED SOLID ELECTROLYTIC CAPACITOR AND METHOD OF MAKING
Attorney Name: Douglas P. Mueller
Phone No.: 612.371.5237
Sheet 64 of 73

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FIG. 138

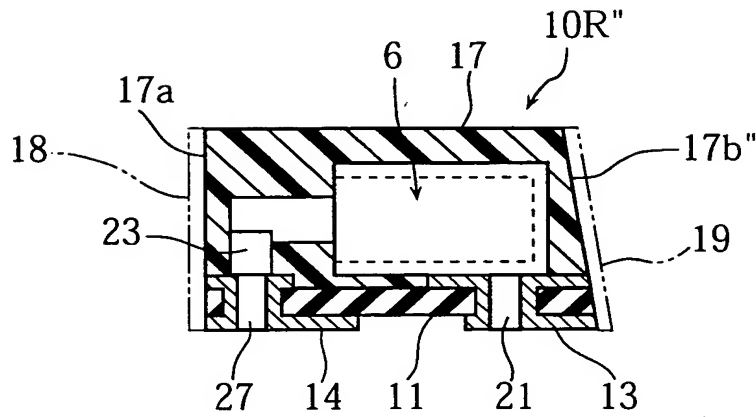


FIG. 139

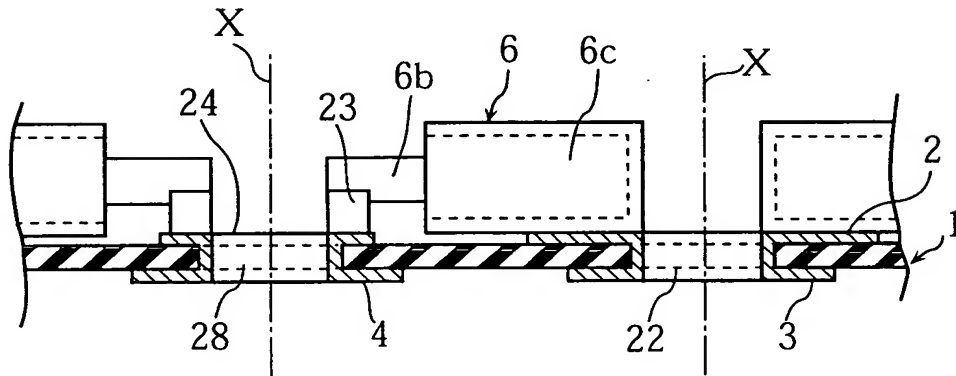


FIG. 138

APPROVED	O.G. FIG.
BY	CLASS SUBCLASS
DRAFTSMAN	

Inventor: Kuriyama, Chojiro
 Doc. No.: 10921.90USD1
 TITLE: PACKAGED SOLID ELECTROLYTIC CAPACITOR AND METHOD OF MAKING
 THE SAME
 Attorney Name: Douglas P. Mueller
 Phone No.: 612.371.5237
 Sheet 65 of 73

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FIG. 140

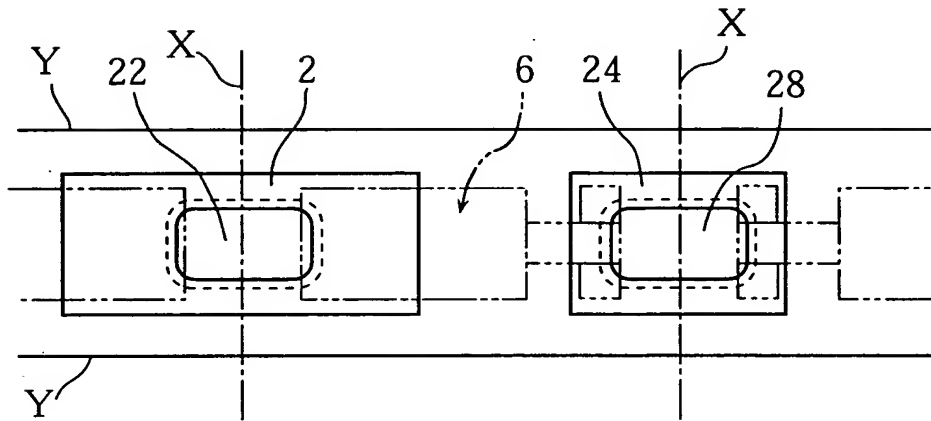
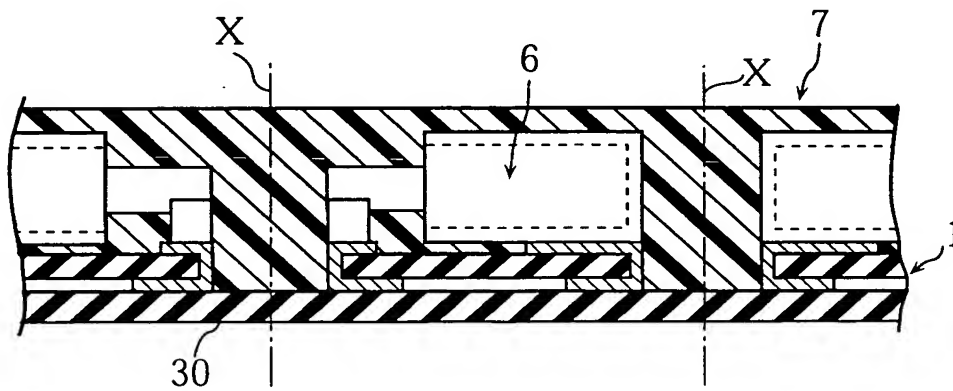


FIG. 141



APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

Inventor: Kuriyama, Chojiro
 Patent No.: 10921.90USD1
 PACKAGED SOLID ELECTROLYTIC CAPACITOR AND METHOD OF MAKING
 NAME
 Attorney Name: Douglas P. Mueller
 Phone No.: 612.371.5237
 Sheet 66 of 73

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FIG. 142

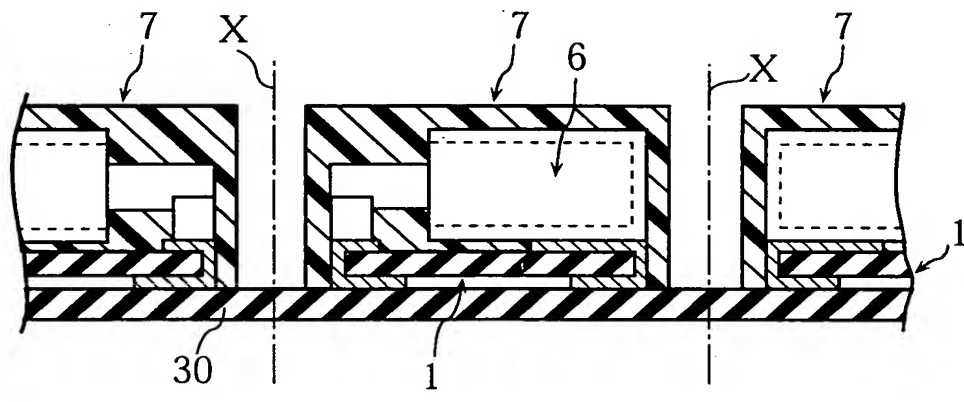
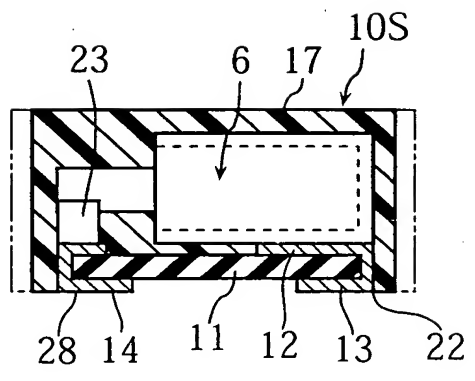


FIG. 143



APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

Inventor: Kuriyama, Chojiro
 Doc. No.: 10921.90USD1
 Title: PACKAGED SOLID ELECTROLYTIC CAPACITOR AND METHOD OF MAKING THE SAME
 Attorney Name: Douglas P. Mueller
 Phone No.: 612.371.5237
 Sheet 67 of 73

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FIG. 144

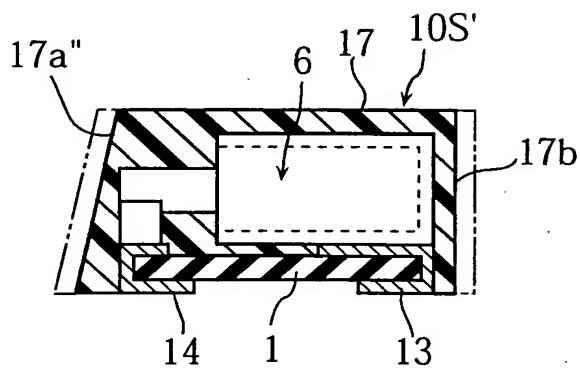
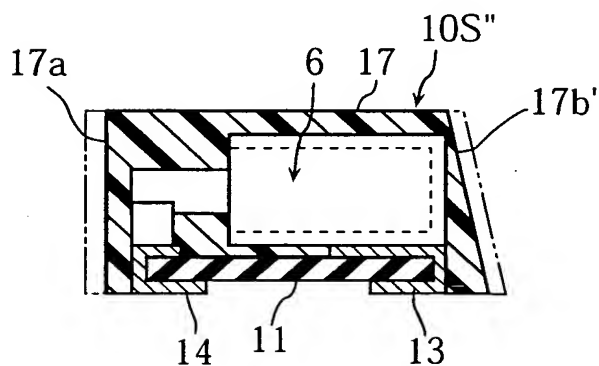


FIG. 145



APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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FIG. 148

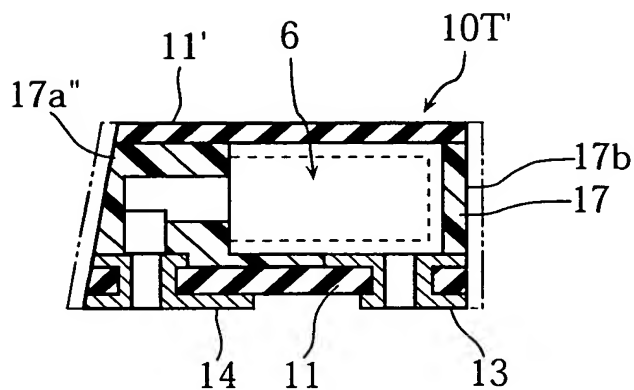
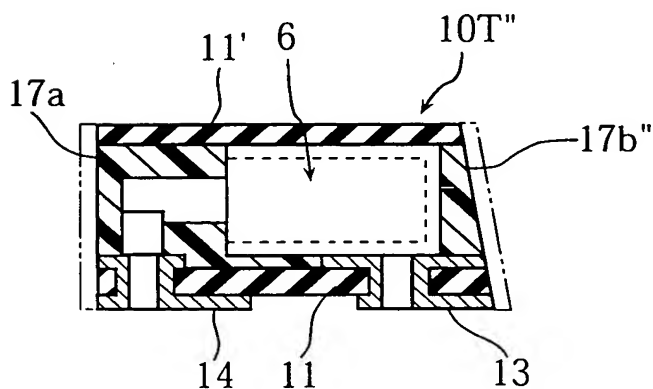


FIG. 149



FOOTPRINT 4560000

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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FIG. 150

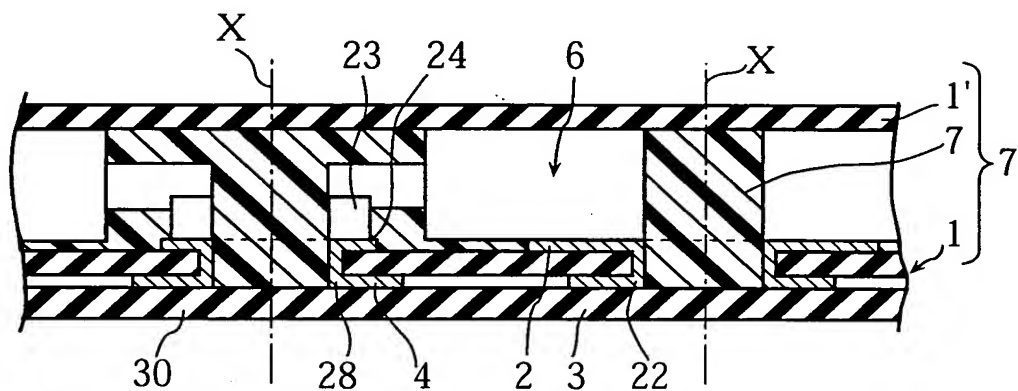
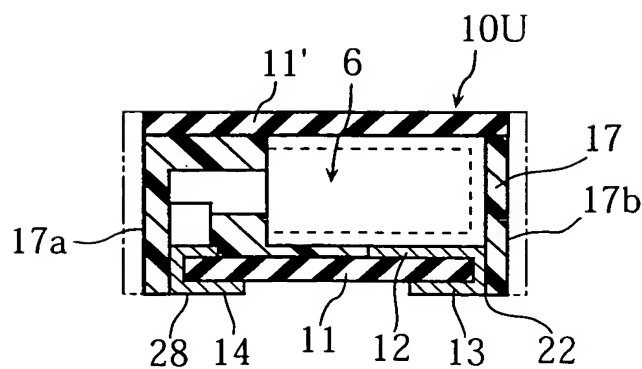


FIG. 151



APPROVED	O.G. FIG.
BY	CLASS SUBCLASS
DRAFTSMAN	

Inventor: Kuriyama, Chojiro
 Doc. No.: 10921.90USD1
 T. PACKAGED SOLID ELECTROLYTIC CAPACITOR AND METHOD OF MAKING
 T. ME
 Attorney Name: Douglas P. Mueller
 Phone No.: 612.371.5237
 Sheet 71 of 73

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FIG. 152

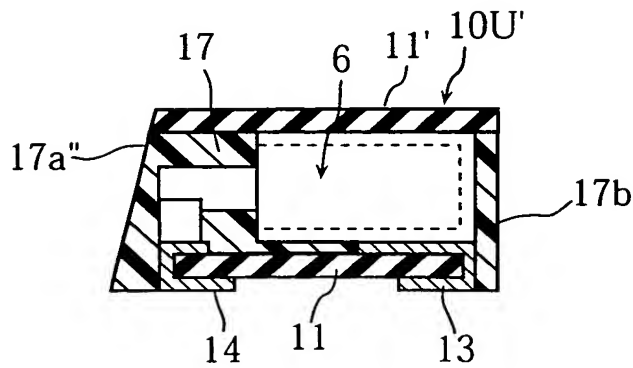


FIG. 153

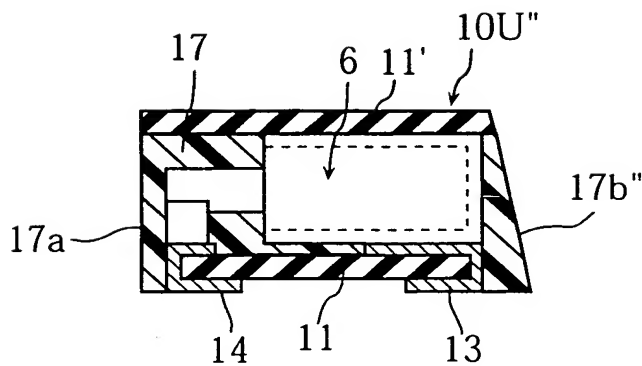


FIG. 152

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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FIG. 154
PRIOR ART

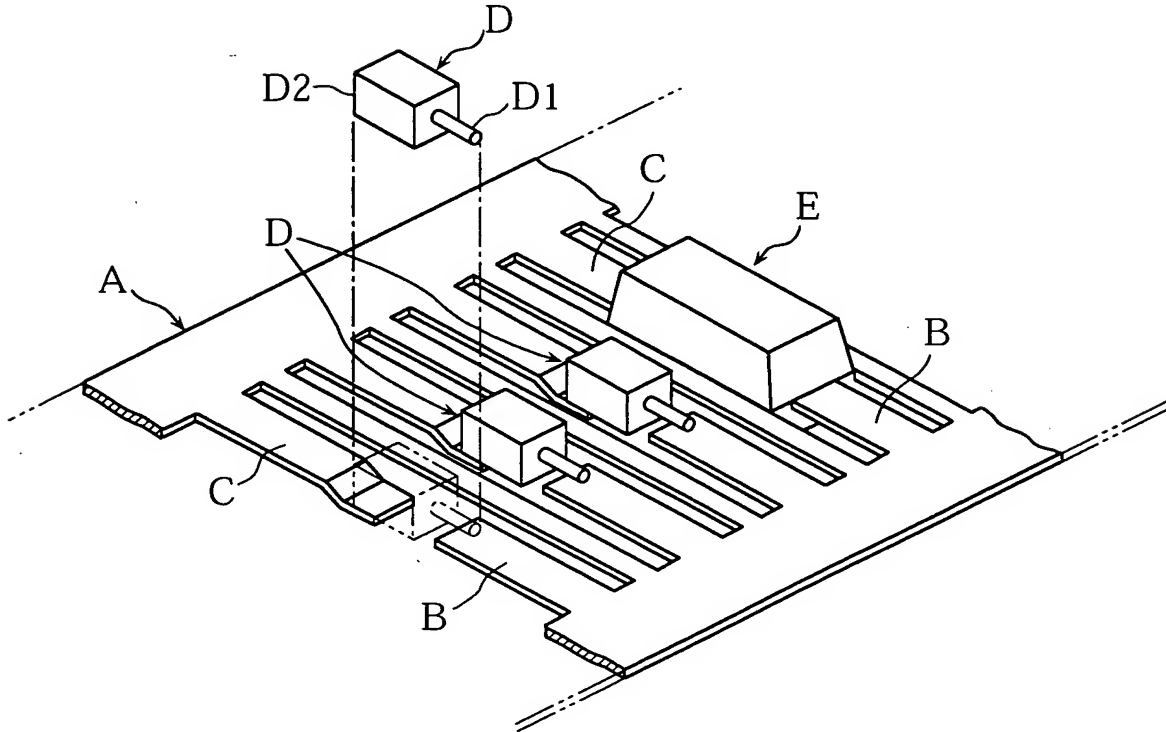


FIG. 155
PRIOR ART

